Site Investigation Report

Northern Petroleum Bulk Storage Plant

521 Bay Street
St. Johnsbury, VT

Prepared For:

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Environmental Compliance Services, Inc. (ECS) has conducted a site investigation (SI) at the Northern Petroleum Bulk Storage Plant, located at 521 Bay Street in St. Johnsbury, Vermont. The SI was initiated to evaluate the degree and extent of soil and groundwater contamination from petroleum releases at the site, which were considered likely as a result of the reported multiple-decade history of petroleum bulk storage at the site. The SI included a preliminary site evaluation, which included a records review and site inspection, to assist in identifying potential historical contaminant sources. Subsurface investigative activities included the advancement of 32 soil borings, of which 21 were completed as monitoring wells, and an evaluation of potential threats to nearby sensitive receptors. The site and surrounding properties are serviced by municipal water supply and wastewater services. ECS's findings related to this work are summarized as follows:

- Soil and groundwater at the site have been impacted with petroleum-related volatile organic compounds (VOCs) associated with both on-site and off-site sources. Although our preliminary investigation disclosed several potential on- and off-site sources, no obvious source or sources were identified. Potential onsite sources identified include the current and former bulk oil storage aboveground storage tanks (ASTs), current and historical onsite loading and unloading operations, and current and former onsite heating oil underground storage tanks (USTs). Potential offsite sources identified include current and historical bulk storage ASTs (Lewis Oil and former Northern Petroleum bulk plant / office site), historical loading and unloading operations (Lewis Oil, Northern Petroleum former bulk plant / current office site, and former Canadian Pacific Railway), current and former petroleum storage USTs (Windshield World, Lawrence Sangravco, Mobil and Irving Oil), and nearby reported or unreported spills (Lewis Oil).

- The downgradient extent of the contamination appears to be adequately defined. Petroleum contamination exceeding Vermont Groundwater Enforcement Standards (VGESs) extends less than approximately 40 feet downgradient of the site.

- Petroleum contamination appears to have migrated onto the site from one or more upgradient off-site sources. Free-phase petroleum product was detected on the western side of Bay Street, upgradient of the site (MW-28). This location is approximately 40 feet north of existing well MW-102 on the Lewis Oil bulk storage plant. The source of this free product is unknown, but likely originated from a source other than the Northern Petroleum bulk plant. The upgradient extent of groundwater contamination in this area has not been defined.

- The VGESs were exceeded for one or more petroleum hydrocarbons in eleven monitoring wells including one offsite well (MW-8, located less than ten feet east (downgradient) of the southeastern property boundary). Total benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations in these wells ranged from 17.7 µg/L in offsite well MW-8 to 19,440 µg/L in onsite well MW-19. The gasoline additive methyl tert-butyl ether (MTBE) was detected in eight onsite and one offsite wells at concentrations ranging from 4.9 to 6,980 µg/L.

- Free-phase product was measured in offsite wells MW-7 and MW-28 at a thickness of 0.05 and 0.02 feet, respectively. Approximately 0.03 feet of floating product were observed on groundwater in on-site monitoring wells MW-17 and MW-19. TPH in MW-7 was identified as #2 fuel oil; TPH was unidentified in the remaining samples, but calculated as #2 fuel oil and gasoline in MW-17 and MW-19, and gasoline in MW-28.

- An underground water line and a possible second line of unknown nature were identified along the eastern and western sides of Bay Street. Based on the distribution of contaminants along Bay

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Street, and the depth to groundwater in this area, the underground utilities in this area are considered to represent potential exposure and preferential-migration pathways.

- The soils encountered during drilling generally consisted of fine sand with little silt from the ground surface to depths of eight to ten feet. Coarse sand and gravel were encountered in the water table below the fine silty sand layers in several borings. Bedrock was not encountered during the drilling program. Depths to groundwater in the on-site monitoring wells ranged from 3.75 feet (MW-11) to 5.80 feet (MW-17) below top-of-casing.

- During the onsite and off-site soil-boring programs, photoionization detector (PID) readings ranging from 0.0 to 585 parts per million (ppm) were obtained from soil samples collected from the soil borings. Elevated PID readings between 145 and 585 ppm were obtained on soils immediately below ground surface at three soil borings (MW-1, MW-17, and MW-18) located in the northern and central portion of the site, suggesting that this is a likely source area. Currently, there is no ground cover in this area, but the area is located within the gated property boundary of the current bulk plant, limiting access to the general public. Since access to impacted soils in this area is limited, and assuming that the site is to continue to operate as a bulk storage facility, the risk to human exposure is moderate to low. If, however, the site were to undergo construction activities or change operations, then this risk would be expected to increase.

- The groundwater in the unconfined surficial aquifer at the site appears to flow generally southeast toward the Passumpsic River, which is located approximately 700 feet east of the site. No stormwater catchbasins potentially leading to the river were identified onsite or southeast of site. Based on the observed contaminant distribution in groundwater, it is unlikely that the Passumpsic River is impacted or threatened by petroleum contamination from the site.

On the basis of the results of this investigation and the conclusions stated above, ECS recommends the following:

1. Given the industrial nature of the surrounding area, the current absence of free product in recoverable amounts, and the relatively low risk of impact to sensitive receptors, active remediation does not appear to be warranted at this time. However, if recoverable amounts of floating free product are discovered in any of the wells, if underground utilities along Bay Street are determined to be been impacted, if site use changes, or if subsequent site monitoring results indicate that VGESs are not likely to be reduced within a reasonable time frame, corrective action will likely be required.

2. The site owner of the Lewis Oil property should be contacted to evaluate the source and extent of groundwater contamination in the vicinity of MW-28.

3. An additional round of groundwater monitoring is recommended at the site in the January of 2006. Groundwater samples should be collected from all onsite and offsite monitoring wells that do not contain free product, including Lewis Oil site wells MW-2, MW-101, and MW-102, if possible. Samples should be analyzed for EPA Method 8021B-list of VOCs.

4. Upon completion of the work activities, a summary report should be prepared which includes boring logs, well construction details, water-quality analytical results, figures showing groundwater flow direction and contaminant distribution, relevant tables, and recommendations for further action.

5. The underground utilities along Bay Street should be further evaluated to determine whether these utilities are acting as a preferential-migration pathway, and to evaluate whether any subsurface structures, such as manholes and catch basins, may have been impacted. The St. Johnsbury Water Department should be notified of the potential groundwater contamination in this area. Appropriate precautionary and safety measures should be incorporated with any utility work in this area.

1.0 INTRODUCTION

This report details the results of a Site Investigation (SI) performed by Environmental Compliance Services (ECS) at the Northern Petroleum Bulk Storage Plant, located at 521 Bay Street in St. Johnsbury, Vermont. This work was performed in accordance with the technical elements in ECS proposals dated June 30 and August 12, which were approved by the State of Vermont on July 13 and August 29, 2005.

1.1 OBJECTIVES AND SCOPE OF WORK

The objectives of this site investigation were to:

- Evaluate potential historical contaminant sources, which were considered likely as a result of the reported multiple-decade history of petroleum bulk storage at the site;
- Evaluate the degree and extent of petroleum contamination in soil and groundwater in the vicinity of likely contaminant-source areas, including identified current and historical locations of petroleum storage and use, and along the upgradient edge of the property across from the Lewis Oil site;
- Qualitatively assess the risks to environmental and public health via relevant sensitive receptors and potential contaminant migration pathways; and
- Identify appropriate monitoring and/or remedial actions based on the site conditions.

To accomplish these objectives, ECS has:

- Reviewed available historical documents including aerial photographs and Sanborn Fire Insurance Maps;
- Interviewed facility staff, a former site occupant, and other knowledgeable persons;
- Reviewed available environmental reports on the site and nearby properties;
- Reviewed local files at the St. Johnsbury Town Clerk's office;
- Inspected the site for indications of spills of oils or hazardous chemicals, and any other adverse environmental conditions that may be present. The work addressed both interior and exterior areas with respect to sumps, floor drains, hazardous materials/waste storage areas, and other potential pathways out of the building.
- Screened stained soil areas for the possible presence of volatile organic compounds (VOCs) using a photoionization detector (PID);
- Supervised the advancement of 32 soil borings and subsequent installation of 21 water-table monitoring wells;
- Screened subsurface soils from the soil borings for the possible presence of VOCs using a PID;

- Identified sensitive receptors in the area, and assessed the risk posed by the contamination to these potential receptors;

- Prepared this summary report, which details the work performed, qualitatively assesses risks, provides conclusions, and offers recommendations for further action.

1.2 SITE DESCRIPTION AND PHYSICAL SETTING

The site operates primarily as a bulk oil storage facility, with a small area in the northern portion of the site used for parking by a local bus shuttle service headquartered on adjacent property north of the site. The property includes two buildings currently used as an office building and storage garage for Northern Petroleum. Neither building has a basement or crawl space. The property also houses bulk oil storage facilities, a propane cylinder and tank storage area, and associated facility parking areas. The ground surface throughout the site is graveled. Stormwater appears to flow to the southeastern corner of the site and ponds near the outside of the bulk storage tank farm. A site plan is shown in Figure 2, and an Area Map is shown in Figure 3.

The surrounding properties are commercial and light-industrial properties located along Bay Street. The site and surrounding properties are serviced by municipal water supply and wastewater services. The Passumpsic River is located approximately 700 feet east of the site. According to the Vermont Agency of Natural Resources Internet Mapping Site of Private Wells, the nearest private water supply well is located approximately ¼-mile southeast of the site, east of the Passumpsic River.

1.3 SITE RECONNAISSANCE

On 12 July 2005, an ECS hydrogeologist inspected the site for indications of spills of oils or hazardous chemicals, and any other adverse environmental conditions that may be present. ECS was accompanied by Curt Utton, Northern Petroleum site manager. The following observations were made:

- The floor throughout both buildings is concrete. Minor cracks were observed in the former office building, but no floor drains or sumps were observed in either building.

- A hazardous waste storage area is located in a small room in the storage garage. Two 55-gallon drums were noted staged on a spill containment pallet. The drums were labeled as containing respective oil-contaminated solids, and oil-contaminated liquids. Both drums were nearly empty during the time of the visit. According to Mr. Utton, a certified hazardous waste hauler periodically transports the waste containers offsite for proper disposal. A spill kit is present in room. Several cans of latex paint were observed near the drums.

- During the initial site reconnaissance, no obvious areas of surficial staining were observed outside on the ground due to a recent rainfall event that concealed potential staining areas. However, during subsequent site visits associated with the drilling activities, minor areas of presumed petroleum staining was observed in the northwestern portion of the site. These areas were included in the drilling program (MW-2 ECS, MW-17, and MW-18).

1.4 OIL STORAGE

The bulk oil storage facilities include gasoline, diesel, kerosene and #2 fuel oil stored in aboveground storage tanks (ASTs) with a total capacity of approximately 130,000 gallons, all of which are located

within an earthen bermed enclosure in the southeastern corner of the site. The base of the berm is composed of six inches of compacted clay. Oil from the bulk tanks is piped underground to a fueling rack located approximately 40 feet north of the tanks. Northern Petroleum currently has a certified Spill Prevention, Control, and Countermeasures (SPCC) Plan for the site; however, provisions for integrity testing of the tanks as required by 40 CFR 112.8 (c)(6) are not provided in the plan. According to the current site operator, integrity testing for the tanks has not been performed since the tanks were installed. Northern Petroleum personnel were unable to confirm whether or not buried piping leading from the ASTs to the loading rack is provided with secondary containment.

One 500-gallon underground storage tank (UST), used to store #2 heating oil for on-site use, is reportedly currently located south of the office building. A former 1,000-gallon UST used to store #2 fuel oil was reportedly located at the storage garage.

Northern Petroleum personnel were unaware of any significant spills or releases or oil at the site.

1.5 NEARBY HIGH RISK PROPERTIES

1.5.1 Lewis Oil Company

Lewis Oil Company bulk petroleum storage facility is located directly across Bay Street west-southwest (upgradient) of the site, and is currently listed on the active Vermont hazardous sites list (SMS Site 98-2484). According to a 1999 Initial Site Investigation report for the Lewis Oil Bulk Storage site, groundwater flow direction across the property was to the southeast, intercepting the southwest corner of the Northern Petroleum Bulk Storage Plant site (TSEC, 1999). A Twin State Environmental map illustrating VOC concentrations detected in groundwater in May 2001 indicated that a monitoring well located near the northern portion of the Lewis Oil site (existing well MW-102) had a total TPH concentration of 4,100 milligrams per liter (mg/L) (Figure 4). Three additional monitoring wells associated with the Lewis Oil site (MW-2, MW-101, and MW-1R) are located along the east side of Bay Street in the right-of-way adjacent to the Northern Petroleum site. These three monitoring wells were included in ECS's sampling plan for this SI.

1.5.2 Former Canadian Pacific Railway

The former Canadian Pacific Railway - St. Johnsbury Rail Yard Site, located west and northwest (upgradient) of the site, is currently listed on the active Vermont hazardous sites list (SMS Site 98-2356). The VT DEC's active sites list indicates that polycyclic aromatic hydrocarbons (PAHs) have been detected in the soils, but no remediation is required by the State. Additional soil samples were to be collected to define the degree and extent of arsenic in the subsurface.

1.5.3 Former Northern Petroleum Former Bulk Plant / Current Office Site

The Northern Petroleum Company former bulk plant / current office site, located across Bay Street directly north (crossgradient) of the site, is an active Vermont hazardous site (SMS Site 91-1169). A number of subsurface investigations and corrective action feasibility studies have reportedly been performed at this site. In a 2002 summary letter, Lincoln Applied Geology (LAG) indicated that "efforts at increasing free product containment and recovery using pump and treat technologies, free product only pumping, air sparging, and soil vapor extraction methodologies indicated minimal benefits could be achieved". Groundwater flow direction calculated in August 2001 was to the southeast. LAG indicated that the dissolved-phase

contaminant plume has occupied the same basic footprint and has not migrated since 1992, with a slow decrease in overall size due to natural attenuation processes (LAG, 2002). This site is currently undergoing passive product recovery.

1.5.4 Lawrence Sangravco

The Lawrence Sangravco site, located immediately northeast (cross- or downgradient) of the site, is an active Vermont hazardous site (SMS Site 92-1244). The VT DEC's active site database indicated that no further action is required at the site pending results at the Northern Petroleum office site. Petroleum contamination was discovered in 1992 in soils during the removal of a #2 fuel oil UST.

1.5.5 Former Ralston Purina

The former Ralston Purina property, located immediately east (downgradient) of the site, is an active Vermont hazardous site (SMS Site 95-1844). A subsurface investigation relative to a leaking gasoline UST removed in 1995 is currently underway.

1.5.6 Carlet, Gilson and Hurley

The Carlet, Gilson and Hurley property, which is a closed Vermont hazardous site as of December 1999 (SMS Site 97-2187), is located to the south, across from the Ralston Purina access road in the likely downgradient direction relative to the site.

1.5.7 Windshield World (Achilles Property)

Windshield World, located approximately 400 feet west-southwest (upgradient) of the site, is an active Vermont hazardous site (SMS Site 93-1549). According to a 1994 environmental report, soil and groundwater at this property were impacted by petroleum-related VOCs associated with a gasoline UST. Groundwater flow was indicated to the north (toward the subject site) following a relatively steep gradient. Other than the Passumpsic River, no other sensitive receptors were identified and quarterly sampling was recommended (LAG, 1994). The VT DEC's active sites list indicates that this site is currently undergoing groundwater monitoring.

1.5.8 Upgradient Gasoline Service Stations

An Irving and a Mobil gasoline service station are located in the likely upgradient direction of the site approximately 300 and 450 feet to the northwest, respectively. Neither of these stations is listed on the Vermont hazardous sites list (active or closed).

1.6 SITE AND AREA HISTORY

The site has been used for bulk petroleum storage for several decades, during which time at least three different bulk petroleum facilities have operated at the site. Since 1990, the site has been operated as a Northern Petroleum bulk storage facility. In 1990, the current generation of ASTs were reportedly moved to the site from a Northern Petroleum property located at 590 Bay Street. According to the SPCC Plan for the site, the current generation of onsite ASTs were originally constructed in 1953 (four tanks) and 1962 (two tanks).

For an unknown period prior to 1990, the site was operated as a petroleum bulk storage facility by Menut & Parks. Another petroleum bulk storage operation reportedly preceded the Menut & Parks business. Aerial photographs dated 1962, 1974, and 1983 illustrate four apparent horizontal bulk storage ASTs located in the northeastern portion of the property, and three apparent vertical bulk storage tanks in the east-center portion of the site. Available Sanborn maps for St. Johnsbury did not include coverage of the site to confirm the history of the site in the late 1980s to early 1990s.

The Lewis Oil site has reportedly served as a bulk oil storage facility for over 50 years. Prior to 1990, fuel was offloaded by rail car at a rack located approximately 80 feet west (upgradient) of the site. In a Phase II report conducted for the former Canadian Pacific Railway, approximately 120 cubic yards of petroleum-contaminated soil were reportedly excavated and stockpiled on the Lewis Oil site in 1990 (Tewhey, 1998). According to the VT DEC spill sites list, approximately 200 gallons of #2 fuel oil were released in January 1999 due to a tank overfill. The spills database indicated that Twin State provided clean up and the spill site was subsequently closed in February 1999.

A lubricating oil business has occupied the former Northern Petroleum Bulk Storage / office site for approximately 25 years.

The former Canadian Pacific Railway property has operated as a rail yard facility since the 1850s. The central portion of the rail yard formerly included fueling operations in the 1960s, approximately 600 feet northwest of the site (Tewhey, 1998).

2.0 INVESTIGATIVE PROCEDURES AND RESULTS

2.1 SOIL BORING / MONITORING WELL INSTALLATION

On 18 and 19 July 2005, ECS supervised the completion of 22 soil borings and subsequent installation of 14 monitoring wells (MW-1, MW-2 ECS, MW-4, MW-5, MW-7, MW-8, MW-11, MW-12, MW-13, MW-16, MW-17, MW-18, MW-19 and MW-22) on or immediately adjacent to the site to further characterize contaminant and hydrogeologic conditions at the site. Based on the results of the initial drilling activities, ECS returned to the site on 12 October 2005 to supervise the completion of ten additional soil borings and subsequent installation of seven additional monitoring wells (MW-26 through MW-32) on up gradient and downgradient properties to further delineate the lateral extent of contamination.

During drilling activities, soil samples were collected continuously from each boring to characterize, screen using a PID, and/or submit for laboratory analysis. The soils generally consisted of fine sand with little silt from below grade to depths of eight to ten feet. Coarse sand and gravel were encountered in the water table below the fine silty sand layers in several borings. Strong petroleum odors were observed in the many of the borings. Bedrock was not encountered during the drilling program.

ECS installed all soil borings using direct-push drilling methodology. Soil samples were collected continuously using four-foot long polyethylene sleeves. All downhole drilling and sampling equipment was decontaminated during use, as appropriate. The monitoring wells were constructed with one-inch diameter polyvinyl chloride (PVC) casing and factory-slotted 0.010-inch slot screen. A ten-foot screen section was set within the presumed groundwater level. Sections of solid PVC riser were added to bring the tops of the well casings to approximately 0.5 feet below ground surface (bgs). Clean silica #1 filter sand was placed in the borehole annulus around each well up to approximately two feet above the slotted interval. A granular bentonite seal, approximately one foot thick, was set above the sand pack, and the remainder of the annular space was backfilled with native material. A flush-mounted steel roadbox was placed over each monitoring well and cemented into place.

All wells were developed using pre-cleaned bailers and dropline. All purge water was discharged to the ground surface in the vicinity of each well. Monitoring-well construction details are included on the soil-boring and well-construction logs in Appendix A.

On 29 July and 19 October 2005, the newly installed monitoring wells were surveyed relative to existing site features, with an azimuth precision of ± 1.0 feet and an elevation precision of ± 0.01 feet.

2.2 SOIL-SCREENING RESULTS

PID readings ranging from 0.0 to 585 parts per million (ppm) were obtained from soil samples collected from the soil borings. Elevated PID readings between 145 and 585 ppm were obtained on soils immediately below ground surface at three soil borings (MW-1, MW-17, and MW-18) located in the northern and central portion of the site, suggesting that this is a likely source area. PID readings ranging from 10.2 to 76.4 ppm were obtained on soils from the zero to three-foot interval at ten locations throughout the site. PID readings less than 10 ppm were obtained in soil borings SB-3, SB-6, SB-9, SB-9, SB-10, SB-14, and SB-21. Table 1 is a summary of elevated PID readings.

An ECS hydrogeologist screened soil samples from discrete intervals in each soil boring for the possible presence of VOCs using a Thermo 580B portable PID. The PID was calibrated in the field with an

isobutylene standard gas to a benzene reference. Soil samples were placed into a polyethylene bag, which was then sealed, agitated, and allowed to equilibrate. The PID probe was inserted into the headspace, and the highest reading was recorded. PID screening results are included on the boring logs in Appendix A.

2.3 SOIL SAMPLING RESULTS

Soil samples were collected from two intervals (above and below the water table) in seven soil borings including MW-1, MW-2, MW-5, MW-12, MW-13, MW-17, and MW-18 and submitted for laboratory analysis of the EPA Method 8021B list of petroleum-related VOCs[1] and TPH diesel-range organics (DRO) by EPA Method 8015. Five of the samples were analyzed and fractional organic carbon (FOC).

The VOC analytical results were compared to the U.S. EPA Region IX Preliminary Remedial Goals (PRGs) for industrial sites. The State of Vermont has not established enforceable standards for soils; VT DEC currently evaluates soil data on a site-by-site basis commonly using the PRGs. The PRGs were exceeded for one or more VOC in MW-1 (from below the water table), MW-2 (from above the water table), and in MW-17 and MW-18 (from both above and below the water table).

The TPH concentrations ranged from 55.9 to 17,700 milligrams per kilogram (mg/Kg). TPH was identified as #2 fuel oil in four borings including MW-1 and MW-12 (above the water table), MW-5 (below the water table), and MW-13 (both above and below the water table). TPH was unidentified in the remaining samples, but calculated as #2 fuel oil, which most closely approximated the distribution of compounds in the sample[2]. TPH concentrations in a sample in MW-1 (below the water table) and MW-2 (above the water table) were calculated as #2 fuel oil and "other oil". Other oil includes lubricating and cutting oil and silicon oil.

The FOC values for the five samples range from 0.0054 to 0.0151. These data is expected to be used in future remedial evaluations for the site.

Table 2 presents a summary of the VOC, TPH, and FOC results; and the laboratory analytical report are presented in Appendix C. Soil contaminant distribution maps for samples collected above and below the water table are shown in Figures 5 and 6, respectively.

Two duplicate samples were collected from MW-3 and MW-5 to ensure that adequate QA/QC standards were maintained. All field procedures were conducted in accordance with ECS standard protocols. The relative percent difference (RPDs) for five VOCs in one of the duplicate samples was over the 30 percent, EPA guidance recommended limits for field duplicate QA/QC. This is likely attributed to the lack of complete homogeneity in the two samples. Following review of the data and discussion with the analytical laboratory, these exceedances are not considered to have affected the validity of the sample results. Sampling procedures were conducted in accordance with ECS standard protocols. The QA/QC results are included in Table 3.

2.4 GROUNDWATER CHARACTERISTICS

Based on the hydrogeologic data, groundwater in the unconfined surficial aquifer at the site appears to flow generally southeast toward the Passumpsic River (Figure 3). Groundwater elevation data suggests

[1] Using EPA Method 8260B
[2] According to Spectrum Analytical, samples in which the petroleum contaminants cannot be positively identified may represent a mixture of contaminants, a contaminant outside of the calibration range, and/or represent a natural degradation of the contaminant(s) in the sample.

that a water-table anomaly is located at MW-11, as the water table appears to be elevated at this location relative to the other nearby wells. The average horizontal hydraulic gradient is approximately 0.18 percent between MW-13 and MW-17. The vertical groundwater flow components at the site, and the hydraulic relationship between the shallow unconfined aquifer and the bedrock aquifer, are currently unknown.

Fluid levels were measured in the onsite monitoring wells on 29 July 2005 to calculate the groundwater flow direction. Depths to groundwater in the on-site monitoring wells ranged from 3.75 feet (MW-11) to 5.80 feet (MW-17) below top-of-casing.

Static water-table elevations were computed for each monitoring well by subtracting the measured depth-to-water readings from the surveyed top-of-casing elevations, which are relative to an arbitrary site datum of 100.00 feet. Water-level measurements and elevation calculations are presented in Table 1. A groundwater flow direction map was prepared using these data (Figure 3). Fluid levels were measured in offsite wells on 19 October 2005 during the secondary groundwater-sampling event. This groundwater elevation data is presented on Figure 3; however the data was not incorporated in groundwater flow map as the overall water table was likely to have been higher during the October event. Field notes are presented in Appendix B.

2.5 SAMPLING AND ANALYSIS

Groundwater or product samples were collected on 29 July and 19 October 2005 from the 21 newly installed monitoring wells and three existing wells and submitted for laboratory analysis. Product samples from four wells (MW-7, MW-17, MW-18, and MW-28) were analyzed for TPH by EPA method 8100 (product ID). Samples collected from the remaining 20 wells were analyzed for the EPA Method 8021B list of petroleum-related VOCs and TPH DRO by EPA Method 8015.

Vermont Groundwater Enforcement Standards[4] (VGESs) were exceeded for one or more petroleum hydrocarbons in samples collected from eleven monitoring wells including one offsite (downgradient) well. Total benzene, toluene, ethyl benzene, and xylenes (BTEX) concentrations in these samples ranged from 17.7 micrograms per liter (µg/L) in offsite well MW-8 to 19,440 µg/L in onsite well MW-19. The total BTEX concentration in existing well MW-2 (Lewis Oil site) was 733.7 µg/L. Based on the groundwater flow direction and history of contamination at the Lewis Oil site, it is probable that groundwater contamination has migrated from the Lewis Oil site onto the subject site at this location.

Low concentrations (below the VGESs) of three VOCs were detected in off-site well MW-30. No petroleum VOCs were detected in off-site wells MW-26, MW-27, MW-29, MW-31, MW-32, MW-101, or MW-1R.

The gasoline additive methyl tert-butyl ether (MTBE) was detected in nine wells located throughout the site in concentrations ranging from 4.9 µg/L in MW-12 to 6,980 µg/L in MW-1. MTBE was not detected in existing offsite well MW-2 (near the Lewis Oil bulk plant) and onsite well MW-12.

[4] Vermont Groundwater Enforcement Standards (VGESs) for eight petroleum related VOCs are as follows: benzene - 5 µg/L; toluene — 1,000 µg/L; ethylbenzene - 700 µg/L; xylenes — 10,000 µg/L.; MTBE, a gasoline additive, - 40 µ/L; naphthalene — 20 µg/L; 1, 2, 4-trimethylbenzene — 5 µg/L; and 1, 3, 5-trimethylbenzene —4 µg/L.

Free-phase product was measured in offsite wells MW-7 and MW-28 at a thickness of 0.05 and 0.02 feet, respectively. Approximately 0.03 feet of floating product were observed on groundwater in on-site monitoring wells MW-17 and MW-19. TPH in MW-7 was identified as #2 fuel oil; TPH was unidentified in the remaining samples, but calculated as #2 fuel oil and gasoline in MW-17 and MW-19, and gasoline in MW-28. (see footnote #2 on the previous page). MW-28 is located approximately 30 feet west, upgradient, of the site property line. MW-7 is located approximately five feet east, downgradient, of the property line and downgradient of the current bulk storage ASTs. MW-19 and MW-17 are located in the northwestern portion of the site near and south of former onsite bulk storage ASTs.

Where detected, TPH concentrations in the groundwater samples ranged from 0.4 milligrams per liter (mg/L) in MW-101 to 15.3 mg/L in MW-18. TPH was identified as #2 fuel oil in MW-11, and was unidentified in the remaining samples, but calculated as #2 fuel oil in eleven of the wells. TPH concentrations in the MW-4, MW-31, MW-101, and MW-1R samples were calculated as "other oil".

Prior to groundwater sample collection, all monitoring wells that did not contain detectable thicknesses of free product were purged with a bailer and then sampled using disposable bailers and dropline, in accordance with ECS standard protocols. Purge water was discharged directly to the ground in the vicinity of each well. A trip blank and a duplicate sample were collected to ensure that adequate quality assurance/quality control (QA/QC) standards were maintained.

All samples were transported under chain-of-custody in an ice-filled cooler to Spectrum Analytical, Inc. of Agawam, Massachusetts, where they were analyzed for the possible presence of VOCs by EPA Method 8021B and for TPH by EPA Method 8015 DRO.

Analytical results of the duplicate samples, collected from MW-16 and MW-30, were within 32 and 20 percent relative percent difference (RPD) of the original sample results, respectively. All laboratory control standards including matrix spikes, method blanks, and quality control analysis were within established laboratory acceptance limits. Sampling technique was performed in accordance with ECS's Standard Operating Procedures. No petroleum-related compounds were detected in the trip blank. Groundwater analytical results are included in Table 4 and the laboratory analytical reports are presented in Appendix C. A groundwater Contaminant Distribution Map is shown in Figure 7.

3.0 CONCEPTUAL SITE MODEL

The site and limited portions of adjacent property to the east and west have been impacted by two or more petroleum contaminants including #2 fuel oil, gasoline, and possibly a third unidentified oil. Contaminant distribution and historical information indicates that the contamination likely originated from multiple sources. No obvious onsite sources, such as a leaking storage tank or spills, have been documented. Two contaminant plumes have been identified and are described below. Groundwater in the unconfined surficial aquifer appears to flow generally southeast toward the Passumpsic River, with an average horizontal hydraulic gradient of approximately 0.18 percent.

3.1 NORTHWESTERN PLUME

The northwestern plume is the larger of the two and is defined by three areas of free product detected in MW-17, MW-19, and MW-28. The outer limits are delineated by reduced VOC concentration in wells and/or relatively low PID readings in soil borings around the northern, eastern, and southern perimeters at MW-27, MW-26, SB-20, SB-6, SB-21, SB-3, SB-15, and MW-4, respectively. The western extent of this plume beyond MW-28 has not been defined.

Data collected to-date suggest that a release related to the former bulk storage tanks may have contributed to the contamination in this portion of the site, but an offsite source west (upgradient) of MW-28 also is considered likely. No. 2 fuel oil was identified in soils above the water table in MW-1, and estimated in MW-2 ECS, MW-17 and MW-18 in soil both above and below the water table. Other oil, (which may include lubricating, cutting, and/or silicon oil) was also estimated above the water table in MW-2 ECS. No. 2 fuel oil and gasoline were identified in groundwater in these wells. Subsurface soils in this area generally consist of a fine to medium sand upper layer with underlying coarse sand and gravels. In all soil borings, the top of the water table is within the finer sands. PID readings in soil borings indicate that the vertical extent of contamination extends into the underlying coarse sand and gravel, where present. PID readings at six soil boring locations increase with increasing depth.

3.2 SOUTHEASTERN PLUME

This smaller plume is defined by one area of free product detected in MW-7. The downgradient limits are delineated by reduced VOC concentration in wells and/or relatively low PID readings in soil borings in MW-29 through MW-32, SB-9 and SB-10. This downgradient limit extends less that approximately 40 feet beyond the Northern Petroleum property line. The upgradient extent of this plume appears less discernable and may merge with the northwestern contaminant plume.

Data collected to-date suggest that a release related to the current bulk storage tank system may have contributed to the contamination in this portion of the site. No. 2 fuel oil was identified in soils both above and below the water table in MW-5 and MW-12, both of which are located upgradient of MW-7. No. 2 fuel oil was also identified in groundwater in wells in this area. The hydrogeology in this area of the site is similar to that described in the previous section. PID readings in soil borings indicate that the vertical extent of contamination extends into the underlying coarse sand and gravel layer, generally decreasing in concentration with increasing depth.

4.0 SENSITIVE RECEPTOR SURVEY AND RISK ASSESSMENT

4.1 SENSITIVE RECEPTOR SURVEY

ECS conducted a survey to identify sensitive receptors in the vicinity of the Northern Petroleum Bulk Plant that could potentially be impacted by contamination associated with the site. The following sensitive receptors were identified in the vicinity of the property.

- The soils in the northwestern and southeastern portion of the site, where elevated PID readings and visual evidence of petroleum contamination were observed in soil borings;
- Underground utility corridor along Bay Street; and
- The Passumpsic River, located approximately 700 feet east of the site.

4.2 RISK ASSESSMENT

ECS qualitatively assessed the risks that the residual soil and dissolved-phase subsurface contamination poses to the receptors identified above. In general, human exposure to petroleum-related contamination is possible through inhalation, ingestion, or direct contact while impacts to environmental receptors are due either to a direct release or contaminant migration through one receptor to another or along a preferential pathway.

- Onsite surface soils - Elevated VOCs were detected by PID, and heavy sheening was observed in soil samples collected from shallow depths at several soil boring locations during the drilling activities. Currently, there is no pavement or other protective surface in this area, but the area is located within the gated property boundary of the current bulk plant, limiting access to the general public. Since access to impacted soils in this area is limited, and assuming that the site is to continue to operate as a bulk storage facility, the risk to human exposure is moderate to low. If, however, the site were to undergo construction activities or change operations, then this risk would be expected to increase.

- Underground utility corridor – According to the Town of St. Johnsbury Water Department, an underground water line runs parallel with Bay Street near the eastern side. The water department identified a possible second line of unknown orientation along the western side during the drilling activities. Based on the distribution of contaminants along Bay Street, and the depth to groundwater in this area (around five to six feet below grade) the underground lines in this area may be impacted, threatened, and/or represent a potential preferential migration pathway.

- Passumpsic River – The Passumpsic River is located approximately 700 feet east of the site. Based on field screening and site observation during drilling activities, it appears that the limit of the groundwater contaminant plume along the northern portion is largely restricted to within the site boundary. Near the southern portion of the site, no VOCs were detected in downgradient monitoring wells (on the former Ralston Purina site). It is therefore unlikely that the Passumpsic River is impacted by petroleum contamination from the site.

5.0 SUMMARY & CONCLUSIONS

Our primary findings and conclusions of this investigation are summarized as follows:

- Soil and groundwater at the site have been impacted with petroleum-related VOCs associated with both on-site and off-site sources. Although our preliminary investigation disclosed several potential on- and off-site sources, no obvious source or sources were identified. Potential onsite sources identified include the current and former bulk oil storage ASTs, current and historical onsite loading and unloading operations, and current and former onsite heating oil USTs. Potential offsite sources identified include current and historical bulk storage ASTs (Lewis Oil and former Northern Petroleum bulk plant / office site), historical loading and unloading operations (Lewis Oil, Northern Petroleum former bulk plant / current office site, and former Canadian Pacific Railway), current and former petroleum storage USTs (Windshield World, Lawrence Sangravco, Mobil and Irving Oil), and nearby reported or unreported spills (Lewis Oil).

- The downgradient extent of the contamination appears to be adequately defined. Petroleum contamination exceeding VGESs extends less than approximately 40 feet downgradient of the site.

- Petroleum contamination appears to have migrated onto the site from one or more upgradient off-site sources. Free-phase petroleum product was detected on the western side of Bay Street, upgradient of the site (MW-28). This location is approximately 40 feet north of existing well MW-102 on the Lewis Oil bulk storage plant. The source of this free product is unknown, but likely originated from a source other than the Northern Petroleum bulk plant. The upgradient extent of groundwater contamination in this area has not been defined.

- The VGESs were exceeded for one or more petroleum hydrocarbons in eleven monitoring wells including one offsite well (MW-8, located less than ten feet east (downgradient) of the southeastern property boundary). Total BTEX concentrations in these wells ranged from 17.7 µg/L in offsite well MW-8 to 19,440 µg/L in onsite well MW-19. The gasoline additive MTBE was detected in eight onsite and one-offsite wells at concentrations ranging from 4.9 to 6,980 µg/L.

- Free-phase product was measured in offsite wells MW-7 and MW-28 at a thickness of 0.05 and 0.02 feet, respectively. Approximately 0.03 feet of floating product were observed on groundwater in on-site monitoring wells MW-17 and MW-19. TPH in MW-7 was identified as #2 fuel oil; TPH was unidentified in the remaining samples, but calculated as #2 fuel oil and gasoline in MW-17 and MW-19, and gasoline in MW-28.

- An underground water line and a possible second line of unknown nature were identified along the eastern and western sides of Bay Street. Based on the distribution of contaminants along Bay Street, and the depth to groundwater in this area, the underground utilities in this area are considered to represent potential exposure and preferential-migration pathways.

- The soils encountered during drilling generally consisted of fine sand with little silt from the ground surface to depths of eight to ten feet. Coarse sand and gravel were encountered in the water table below the fine silty sand layers in several borings. Bedrock was not encountered

during the drilling program. Depths to groundwater in the on-site monitoring wells ranged from 3.75 feet (MW-11) to 5.80 feet (MW-17) below top-of-casing.

- During the onsite and off-site soil-boring programs, PID readings ranging from 0.0 to 585 ppm were obtained from soil samples collected from the soil borings. Elevated PID readings between 145 and 585 ppm were obtained on soils immediately below ground surface at three soil borings (MW-1, MW-17, and MW-18) located in the northern and central portion of the site, suggesting that this is a likely source area. Currently, there is no ground cover in this area, but the area is located within the gated property boundary of the current bulk plant, limiting access to the general public. Since access to impacted soils in this area is limited, and assuming that the site is to continue to operate as a bulk storage facility, the risk to human exposure is moderate to low. If, however, the site were to undergo construction activities or change operations, then this risk would be expected to increase.

- The groundwater in the unconfined surficial aquifer at the site appears to flow generally southeast toward the Passumpsic River, which is located approximately 700 feet east of the site. No stormwater catchbasins potentially leading to the river were identified onsite or southeast of site. Based on the observed contaminant distribution in groundwater, it is unlikely that the Passumpsic River is impacted or threatened by petroleum contamination from the site.

6.0 RECOMMENDATIONS

On the basis of the results of this investigation and the conclusions stated above, ECS recommends the following:

1. Given the industrial nature of the surrounding area, the current absence of free product in recoverable amounts, and the relatively low risk of impact to sensitive receptors, active remediation does not appear to be warranted at this time. However, if recoverable amounts of floating free product are discovered in any of the wells, if underground utilities along Bay Street are determined to be been impacted, if site use changes, or if subsequent site monitoring results indicate that VGESs are not likely to be reduced within a reasonable time frame, corrective action will likely be required.

2. The site owner of the Lewis Oil property should be contacted to evaluate the source and extent of groundwater contamination in the vicinity of MW-28.

3. An additional round of groundwater monitoring is recommended at the site in the January of 2006. Groundwater samples should be collected from all onsite and offsite monitoring wells that do not contain free product, including Lewis Oil site wells MW-2, MW-101, and MW-102, if possible. Samples should be analyzed for EPA Method 8021B-list of VOCs.

4. Upon completion of the work activities, a summary report should be prepared which includes boring logs, well construction details, water-quality analytical results, figures showing groundwater flow direction and contaminant distribution, relevant tables, and recommendations for further action.

5. The underground utilities along Bay Street should be further evaluated to determine whether these utilities are acting as a preferential-migration pathway, and to evaluate whether any subsurface structures, such as manholes and catch basins, may have been impacted. The St. Johnsbury Water Department should be notified of the potential groundwater contamination in this area. Appropriate precautionary and safety measures should be incorporated with any utility work in this area

.

7.0 REFERENCES

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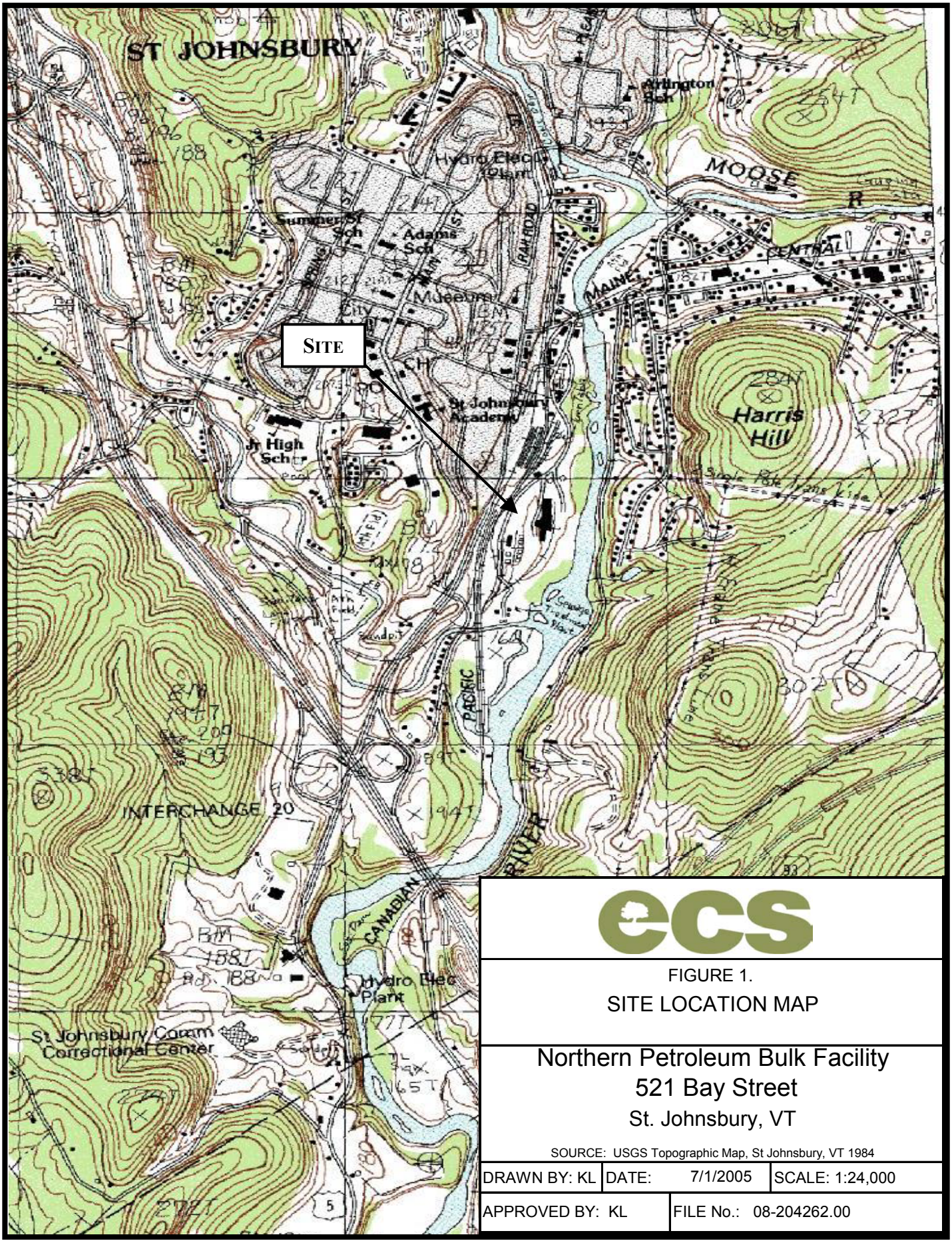
FIGURES



ecs

FIGURE 1.

SITE LOCATION MAP

Northern Petroleum Bulk Facility
521 Bay Street
St. Johnsbury, VT

SOURCE: USGS Topographic Map, St Johnsbury, VT 1984

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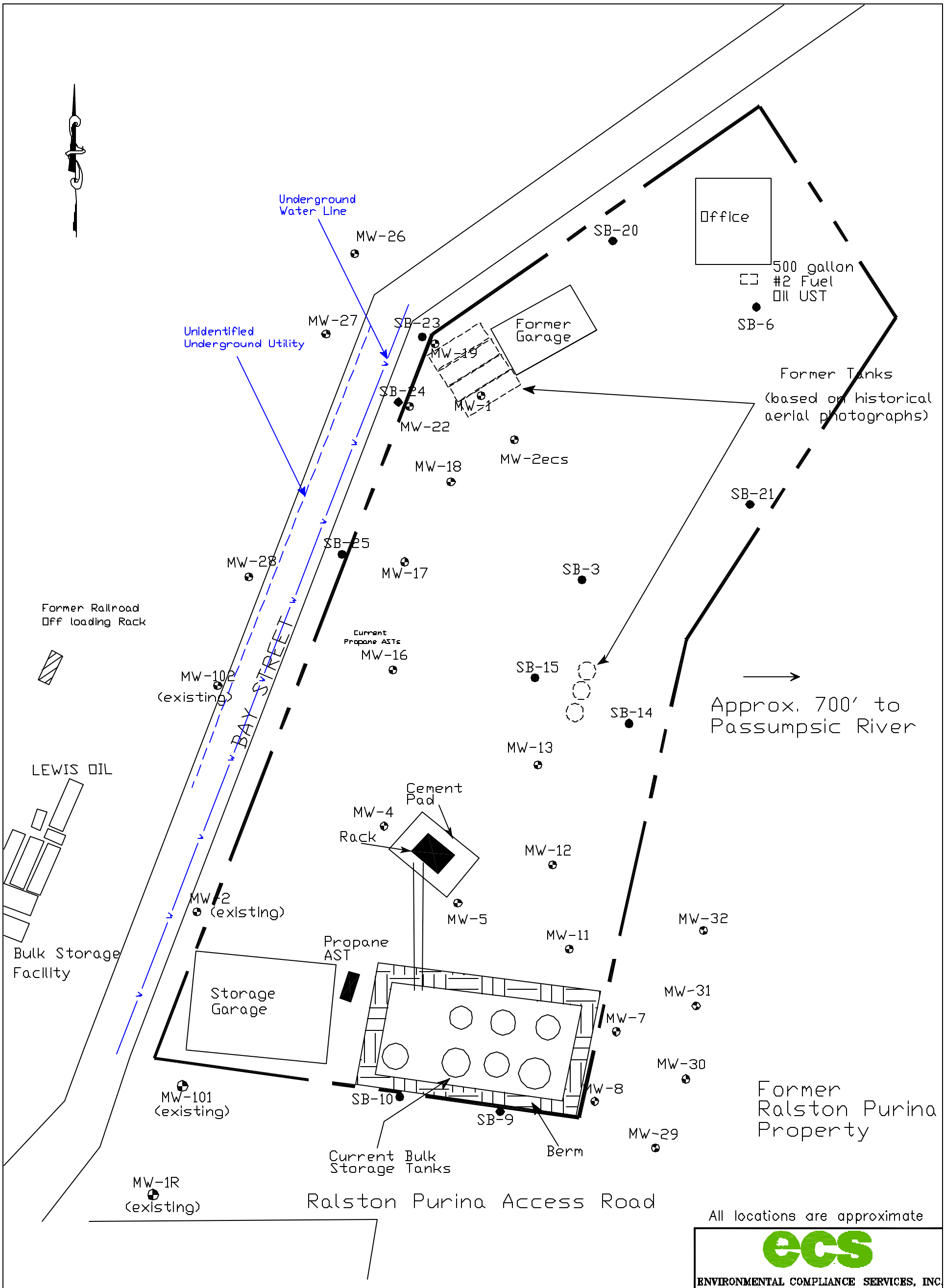
APPROVED BY: KL	FILE No.: 08-204262.00	



ENVIRONMENTAL COMPLIANCE SERVICES, INC.
85 Millet Street, Suite 301 * Richmond, VT 05477

PROJECT:
Northern Petroleum Bulk Facility
521 Bay Street
St. Johnsbury, VT

TITLE:
Site Plan

CLIENT:
Bradford Oil Company

GRAPHIC SCALE: 40 20 0 20 40

COMPUTER CADFILE: 204262sp.dwg

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FHL	KL	KL	KL
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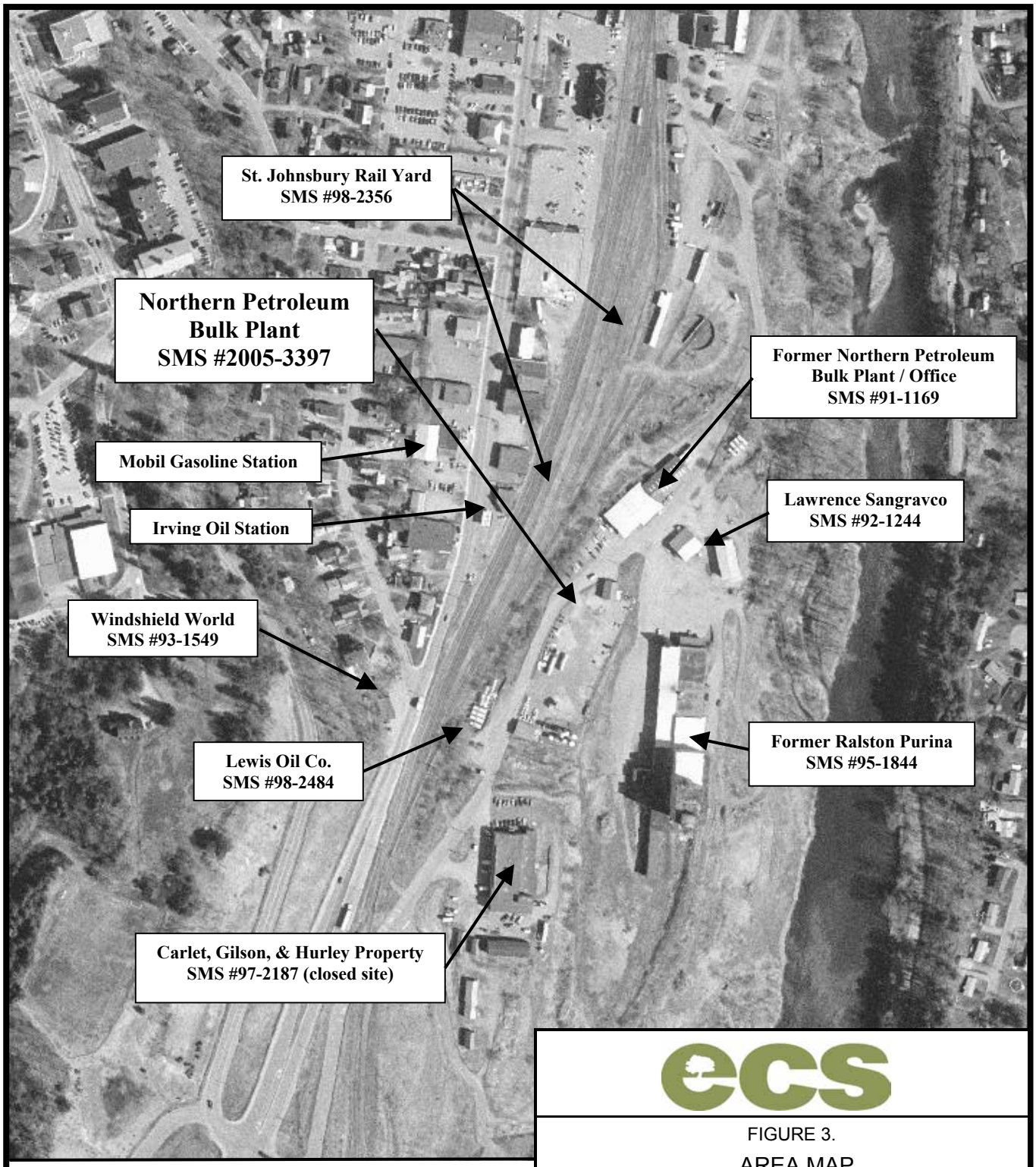

FIGURE 3.

AREA MAP

Northern Petroleum Bulk Facility
521 Bay Street
St. Johnsbury, VT

SOURCE: USGS Arial Photograph, St Johnsbury, VT 1999

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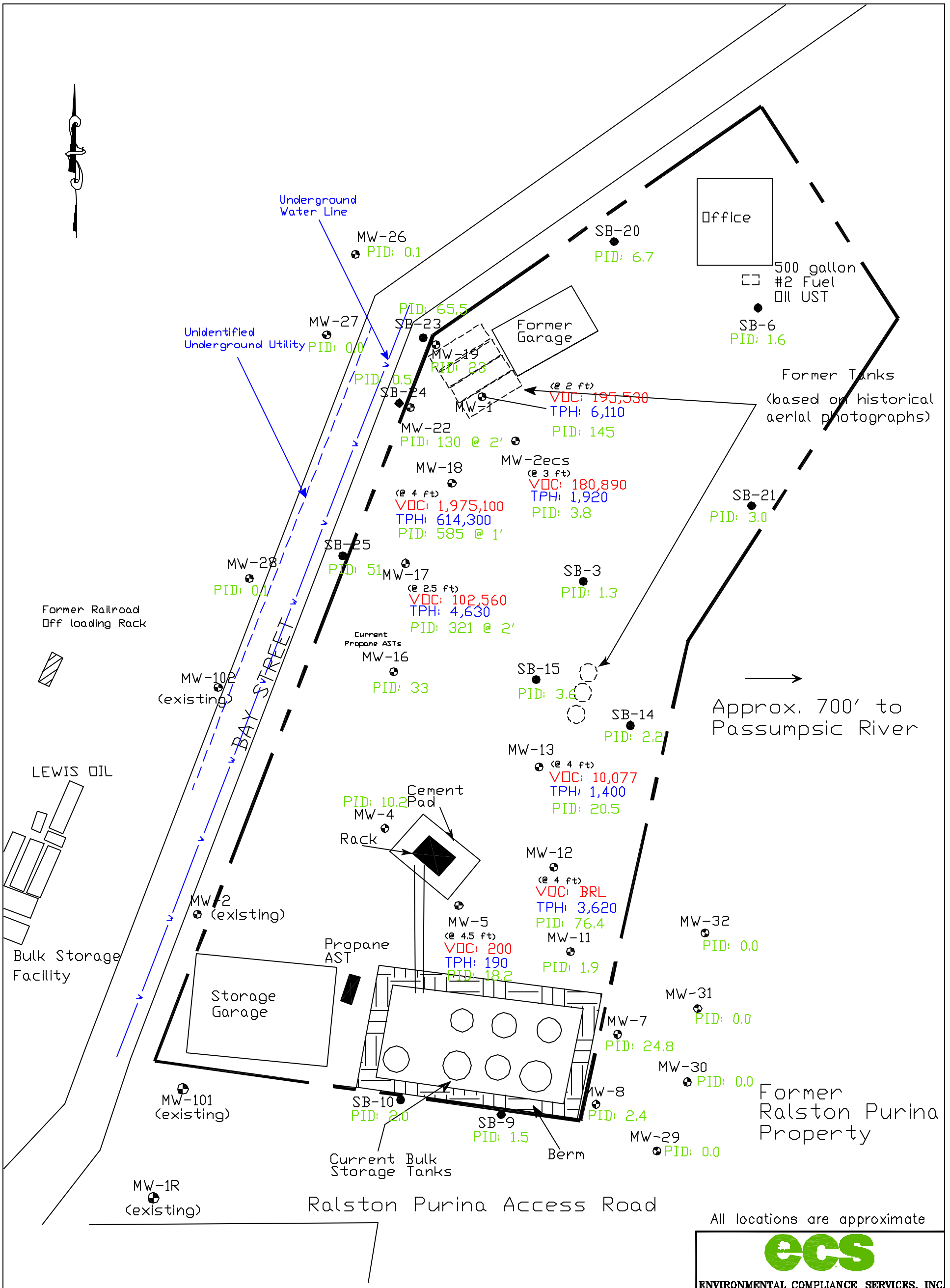
APPROVED BY: KL	FILE No.: 08-204262.00	



All locations are approximate

LEGEND

MW-2 ⊕	MONITORING WELL
SB-2 ●	SOIL BORING LOCATIONS
—·—·—	PROPERTY LINE
PID	PHOTOIONIZATION DETECTOR, parts per million (ppm)
VOC	VOLATILE ORGANIC COMPOUNDS, microgram per killogram (ug/kg)
TPH	TOTAL PETROLEUM HYDROCARBONS, milligrams per killogram (mg/kg)

PID readings collected from 0-3' bgs, unless otherwise noted.

Sampling was completed on 18 & 19 July and 12 October 2005.

0 40(ft)

ENVIRONMENTAL COMPLIANCE SERVICES, INC.
85 Millet Street, Suite 301 * Richmond, VT 05477

PROJECT:
Northern Petroleum Bulk Facility
521 Bay Street
St. Johnsbury, VT

TITLE:
Soils Cont. Dist. Map Above Water Table

CLIENT:
Bradford Oil Company

GRAPHIC SCALE: 40 20 0 20 40

COMPUTER CADFILE: 204262sp.dwg

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FHL	KL	KL	KL
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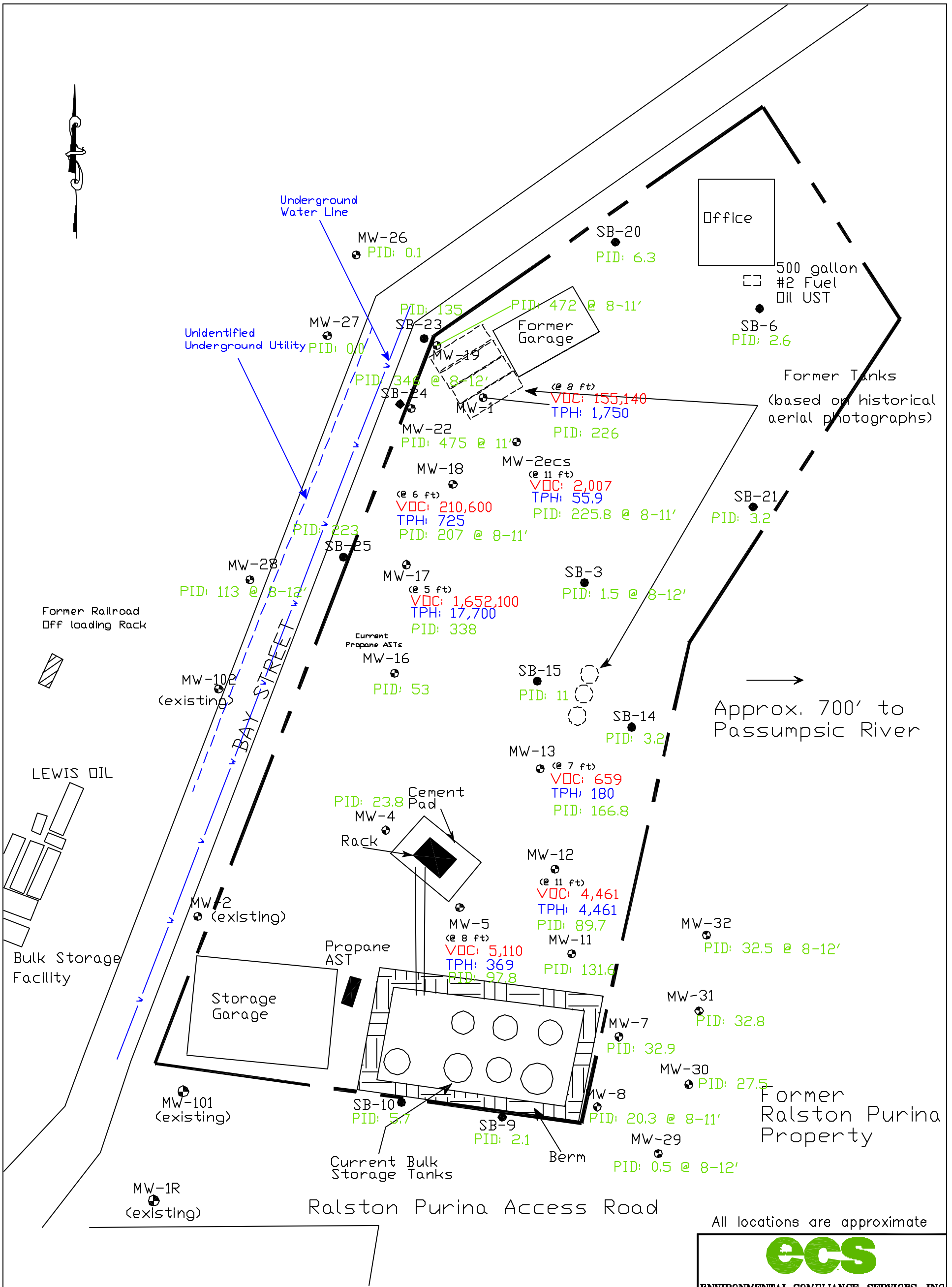

LEGEND

MW-2 ⊕	MONITORING WELL
SB-2 ●	SOIL BORING LOCATIONS
—·—·—	PROPERTY LINE
PID	PHOTOIONIZATION DETECTOR, parts per million (ppm)
VOC	VOLATILE ORGANIC COMPOUNDS, microgram per killogram (ug/kg)
TPH	TOTAL PETROLEUM HYDROCARBONS, milligrams per killogram (mg/kg)

PID readings collected from just below the water table, unless otherwise noted.

Sampling was completed on 18 & 19 July and 12 October 2005.

0 40(ft)

ENVIRONMENTAL COMPLIANCE SERVICES, INC.
85 Millet Street, Suite 301 • Richmond, VT 05477

PROJECT:
Northern Petroleum Bulk Facility
521 Bay Street
St. Johnsbury, VT

TITLE:
Soils Cont. Dist. Map Below Water Table

CLIENT:
Bradford Oil Company

GRAPHIC SCALE: 40 20 0 20 40

COMPUTER CADFILE: 204262sp.dwg

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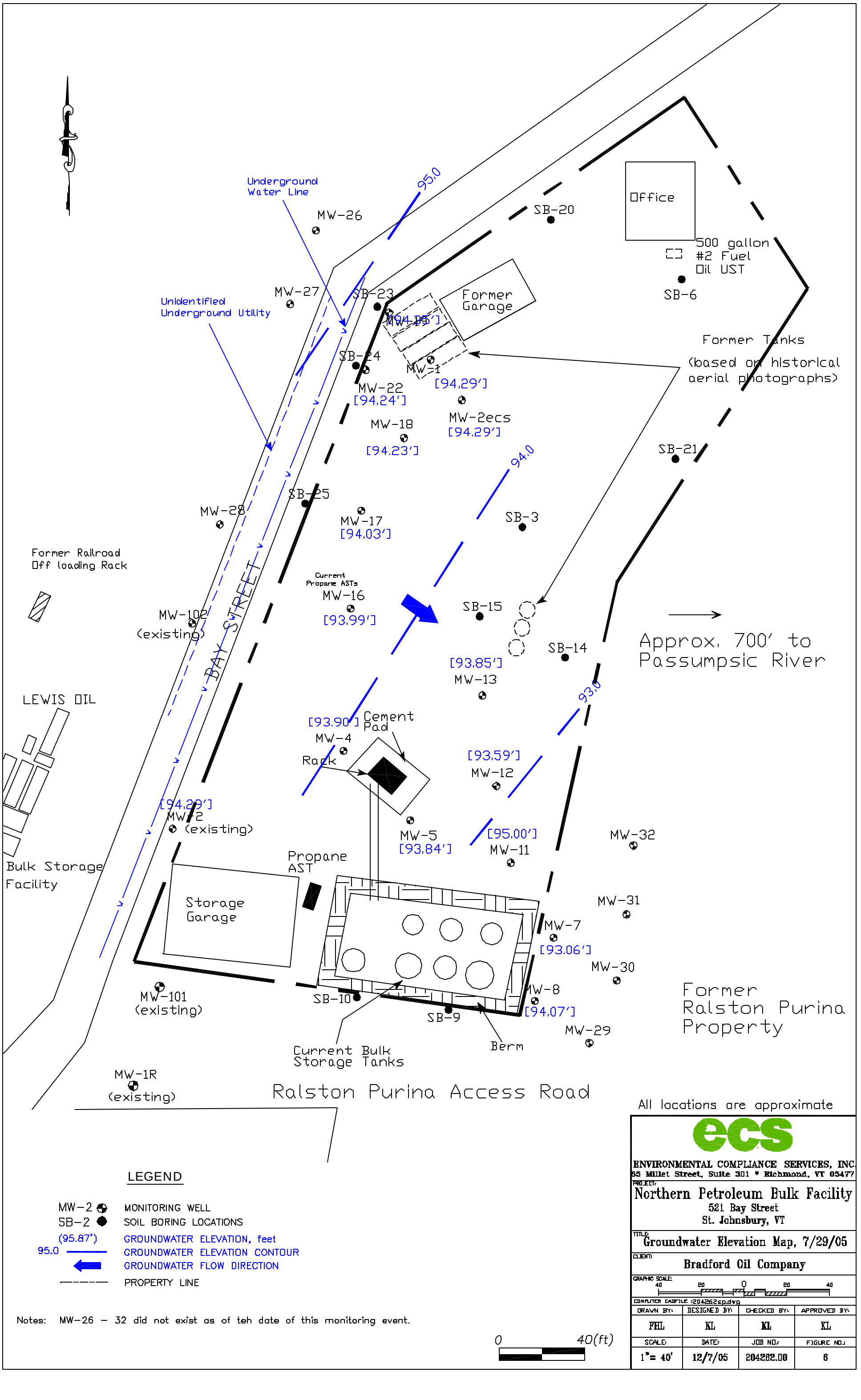

ENVIRONMENTAL COMPLIANCE SERVICES, INC.
85 Millet Street, Suite 301 * Richmond, VT 05477

PROJECT:
Northern Petroleum Bulk Facility
521 Bay Street
St. Johnsbury, VT

TITLE:
Groundwater Elevation Map, 7/29/05

CLIENT:
Bradford Oil Company

GRAPHIC SCALE: 40 20 0 20 40

COMPUTER CADFILE: 204262sp.dwg

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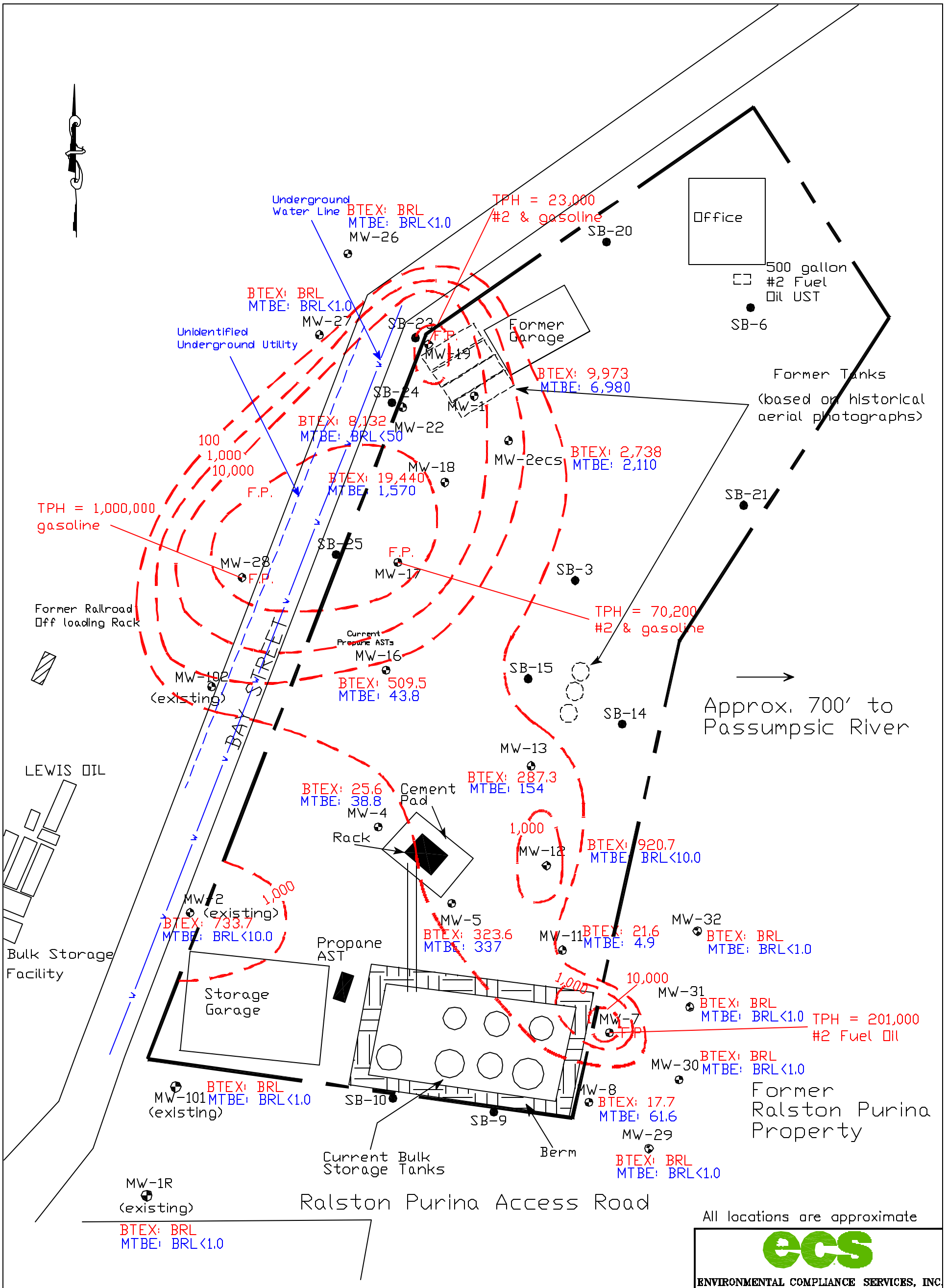

ENVIRONMENTAL COMPLIANCE SERVICES, INC.
85 Millet Street, Suite 301 * Richmond, VT 05477

PROJECT:
Northern Petroleum Bulk Facility
521 Bay Street
St. Johnsbury, VT

TITLE:
Groundwater Contaminant Dist. Map

CLIENT:
Bradford Oil Company

GRAPHIC SCALE: 40 20 0 20 40

COMPUTER CADFILE: 204262sp.dwg

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FHL	KL	KL	KL
SCALE:	DATE:	JOB NO:	FIGURE NO.:
1"= 40'	12/7/05	204262.00	7

TABLES

TABLE 1.
SUMMARY OF HIGHEST PID READINGS

521 Bay Street
St. Johnsbury, VT

SOIL BORING LOCATION	DATE SAMPLED	NEAR SURFACE (0 TO 3 FT. BGS)	WATER TABLE		BOTTOM OF BORING (8 TO 12 FT. BGS)
			Reading	Depth ft. bgs	
MW-1	7/18/05	145	226	6	158.3
MW-2 ECS	7/18/05	3.8	202	6	225.8
SB-3	7/18/05	1.4	1.2	6	1.5
MW-4	7/18/05	10.2	23.8	5	--
MW-5	7/18/05	18.2	97.8	8	19.5
SB-6	7/18/05	1.6	2.6	7.5	1.7
MW-7	7/18/05	24.8	32.9	6	29.8
MW-8	7/18/05	2.4	12.8	4	20.3
SB-9	7/18/05	1.5	2.1	4.5	2.0
SB-10	7/18/05	2.0	5.7	5.5	2.0
MW-11	7/18/05	1.9	131.6	6	127.6
MW-12	7/18/05	76.4	89.7	5	83
MW-13	7/18/05	20.5	166.8	5.5	65
SB-14	7/18/05	2.2	3.2	6	4.5 @ 11 ft.
SB-15	7/19/05	3.6	11	5	3.0
MW-16	7/19/05	33	53	5	7 @ 11.5 ft.
MW-17	7/19/05	321 @ 2 ft.	338	5	184
MW-18	7/19/05	585 @ 1 ft.	--	5	207
MW-19	7/19/05	23	278	5	472
SB-20	7/19/05	6.7	6.3	4	3.0
SB-21	7/19/05	3.0	3.2	5	--
SB-22	7/19/05	13.0 @ 2 ft.	450	8	475 @ 11 ft.
SB-23	10/12/05	65.5	489	6	134
SB-24	10/12/05	0.5	307	6	346
SB-25	10/12/05	51	223	6	93
MW-26	10/12/05	0.1	0.1	5	0.1
MW-27	10/12/05	0.0	0.0	5	0.0
MW-28	10/12/05	23	3.3	4.5	113
MW-29	10/12/05	0.0	0.0	6	0.5
MW-30	10/12/05	0.0	27.5	5	25.2
MW-31	10/12/05	0.0	32.8	6	23.7
MW-32	10/12/05	0.0	3.6	6	32.5

Notes:
ppm – parts per million
bgs – below ground surface

Table 2.
Groundwater Elevations

521 Bay Street
St. Johnsbury, VT

Monitoring Date: 29 July 2005 & 19 October 2005

Well I.D.	Top of Casing Elevation	Depth to Product	Depth to Water	Product Thickness	Corrected Depth to Water	Water Table Elevation
MW-1	100.00	--	5.71	--	--	94.29
MW-1R (existing)	--	--	5.72	--	--	--
MW-2 (existing)	100.14	--	5.85	--	--	94.29
MW-2ECS	100.16	--	5.94	--	--	94.22
MW-4	99.15	--	5.25	--	--	93.90
MW-5	98.95	--	5.11	--	--	93.84
MW-7	100.50	6.45	7.00	0.55	7.44	93.06
MW-8	100.67	--	6.60	--	--	94.07
MW-11	98.75	--	3.75	--	--	95.00
MW-12	98.65	--	5.06	--	--	93.59
MW-13	98.98	--	5.13	--	--	93.85
MW-16	99.56	--	5.57	--	--	93.99
MW-17	99.83	--	5.80	--	--	94.03
MW-18*	99.96	--	5.73	--	--	94.23
MW-19*	100.05	--	5.70	--	--	94.35
MW-22	99.95	--	5.71	--	--	94.24
MW-26	102.76	--	6.89	--	--	95.87
MW-27	102.90	--	7.03	--	--	95.87
MW-28	102.09	6.50	6.77	0.27	6.99	95.10
MW-29	99.63	--	4.14	--	--	95.49
MW-30	100.01	--	4.37	--	--	95.64
MW-31	99.95	--	4.13	--	--	95.82
MW-32	99.75	--	3.89	--	--	95.86
MW-101 (existing)	--	--	6.07	--	--	--

Notes:

* Approximately 0.4 inches of product was observed in bailer during sampling in MW-17 and MW-19.

All values reported in feet relative to a datum of 100.00 ft.

Corrected Depth to Water: (DTP - DTW)*0.8 +DTW, where 0.8 is estimated specific gravity of #2 fuel oil
DTW = depth to water, and DTP = depth to product.

All wells except MW-26 through MW-32 were gauged on 29 July 2005. MW-26 - MW-32 were gauged on 19 October 2005.

Table 3.
Summary of Soil Analytical Results

521 Bay Street
St. Johnsbury, VT

Sample Identification	*PRG*	MW-1		MW-2 ECS		MW-5		MW-12		MW-13		MW-17		MW-18	
		SB-1-2	SB-1-8	SB-2-3	SB-2-11	SB-5-4.5	SB-5-8	SB-12-4	SB-12-11	SB-13-4	SB-13-7	SB-17-2.5	SB-17-5	SB-18-4	SB-18-6
Sample Depth		2.0	8.0	3.0	11.0	4.5	8.0	4.0	11.0	4.0	7.0	2.5	5.0	4.0	6.0
Date Collected		7/18/05		7/18/05		7/18/05		7/18/05		7/18/05		7/19/05		7/19/05	
VOLATILE ORGANIC COMPOUNDS by EPA Method 8260B (µg/kg)															
Benzene	1,400	BRL<1,160	**2,100**	**4,720**	BRL<209	**15.8**	BRL<202	BRL<180	BRL<140	BRL<157	BRL<139	**2,250**	**21,600**	BRL<5610	**6,080**
Ethylbenzene	400,000	**8,800**	**14,000**	**6,740**	BRL<209	**7.0**	BRL<202	BRL<180	**140**	**495**	BRL<139	**4,250**	**127,000**	**79,100**	**13,600**
Toluene	520,000	BRL<1,160	**1,510**	**2,730**	BRL<209	**8.1**	BRL<202	BRL<180	BLR<140	**281**	BRL<139	**4,380**	**129,000**	**123,000**	**24,400**
Total Xylenes	420,000	**54,030**	**65,260**	**73,500**	**524**	**55.0**	**1,230**	BRL<360	**722**	**2,581**	BRL<279	**29,780**	**652,000**	**754,000**	**91,800**
BTEX	--	**62,830**	**82,870**	**87,690**	**524**	**85.9**	**1,230**	--	**866**	**3,357**	--	**40,660**	**929,600**	**956,100**	**135,880**
Naphthalene	190,000	**23,800**	**8,070**	**14,700**	**259**	**22.9**	**1,080**	BRL<180	**1,160**	**1,300**	BRL<139	**11,900**	**87,500**	**118,000**	**8,040**
1,2,4-Trimethylbenzene	170,000	**82,800**	**39,100**	**57,600**	**280**	**64.5**	**2,010**	BRL<180	**1,740**	**3,880**	**325**	**38,200**	**478,000**	**684,000**	**47,200**
1,3,5-Trimethylbenzene	70,000	**26,100**	**12,300**	**20,900**	BRL<209	**17.2**	**790**	BRL<180	**695**	**1,540**	**149**	**11,800**	**157,000**	**217,000**	**15,700**
Methyl tert-butyl ether	70,000	BRL<1,160	**12,800**	BRL<1,370	**944**	**9.1**	BRL<202	BRL<180	BRL<140	BRL<157	**185**	BRL<1170	BRL<2490	BRL<5610	**3,780**
Total VOCs	--	**195,530**	**155,140**	**180,890**	**2,007**	**200**	**5,110**	**BRL**	**4,461**	**10,077**	**659**	**102,560**	**1,652,100**	**1,975,100**	**210,600**
EXTRACTABLE PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS by EPA Method 8015B (mg/kg)															
Fuel Oil #2	--	**6,110**	--	--	--	--	**369**	**3,620**	--	**1,400**	**180**	--	--	--	--
Unidentified (calculated as)	--	--	**1,750** (#2 fuel oil & other oil)	**1,920** (#2 fuel oil & other oil)	**55.9** (#2 fuel oil)	**190** (#2 fuel oil)	--	--	**104** (#2 fuel oil)	--	--	**4,630** (#2 fuel oil)	**17,700** (#2 fuel oil)	**14,300** (#2 fuel oil)	**725** (#2 fuel oil)
FRACTIONAL ORGANIC CARBON (FOC) (percent)															
FOC	--	**--**	0.0056	--	0.0056	--	**--**	**--**	0.0054	**--**	**--**	0.0122	0.0082	0.0151	--

Notes:
-- - not analyzed or not applicable
µg/kg – micrograms per kilogram
mg/kg - milligrams per kilogram
BRL – Below reportable detection limit
Sample depth reported in approximate feet below ground surface.
PRG - EPA Preliminary Remediation Goal for Industrial Settings. Concentrations above PRGs are shaded.
Other Oil - includes lubricating and cutting oil, and silicon oil
Unidentified - unidentified petroleum product is detected and quantified using a calibration that most closely approximates the distribution of compounds in the sample.

Table 3.
Summary of Soil Analytical Results

521 Bay Street
St. Johnsbury, VT

QA/QC SAMPLES							
Sample Identification	***PRG***	SB-2-3	SB-2-3D	% difference	SB-5-8	SB-5-8D	% difference
Sample Depth		3	3	--	8	8	--
Date Collected		7/18/05		--	7/18/05		--
VOLATILE ORGANIC COMPOUNDS by EPA Method 8260B (µg/L)							
Benzene	1,400	**4,720**	**4,370**	8	BRL<202	BRL<280	--
Ethylbenzene	400,000	**6,740**	**4,740**	35	BRL<202	BRL<280	--
Toluene	520,000	**2,730**	BRL<3,730	--	BRL<202	BRL<280	--
Total Xylene	420,000	**73,500**	**70,000**	5	**1,230**	**2,250**	59
BTEX	--	**87,690**	**79,110**	10	**1,230**	**2,250**	59
Naphthalene	190,000	**14,700**	**14,300**	3	**1,080**	**1,590**	38
1,2,4 Trimethylbenzene	170,000	**57,600**	**49,500**	15	**2,010**	**3,560**	56
1,3,5 Trimethylbenzene	70,000	**20,900**	**18,300**	13	**790**	**1,420**	57
MTBE	70,000	BRL<1,370	BRL<3,730	--	BRL<202	BRL<280	--
Total VOCs	--	**180,890**	**161,210**	**--**	**5,110**	**8,820**	**--**
EXTRACTABLE PETROLEUM HYDROCARBONS - DRO (mg/kg)							
Fuel Oil #2	--	--	**3,760**	65	**369**	**864**	80
Unidentified (calculated as)	--	**1,920** (#2 fuel oil & other oil)	--		--	--	--

Notes:

-- - not analyzed or not applicable

µg/kg – micrograms per kilogram

mg/kg - milligrams per kilogram

BRL – Below reportable detection limit

Sample depth reported in approximate feet below ground surface.

PRG - EPA Preliminary Remediation Goal for Industrial Settings. Concentrations above PRGs are shaded.

Other Oil - includes lubricating and cutting oil, and silicon oil

Unidentified - unidentified petroleum product is detected and quantified using a calibration that most closely approximates the distribution of compounds in the sample.

Table 4.
Summary of Groundwater Analytical Results

521 Bay Street
St. Johnsbury, VT

ON-SITE MONITORING WELLS													
Sample Identification	***VGES***	MW-1	MW-2 ECS	MW-4	MW-5	MW-11	MW-12	MW-13	MW-16	MW-17	MW-18	MW-19	MW-22
Sampling Date		7/29/05	7/29/05	7/29/05	7/29/05	7/29/05	7/29/05	7/29/05	7/29/05	7/29/05	7/29/05	7/29/05	7/29/05
VOLATILE ORGANIC COMPOUBRLS by EPA Method 8260B (µg/L)													
Benzene	5	**1,060**	**827**	**4.9**	**157**	**18.2**	BRL<10.0	**60.2**	**453**	--	**2,770**	--	**616**
Ethylbenzene	700	**1,560**	**398**	**2.0**	**21.6**	**1.3**	**162**	**29.0**	**11.1**	--	**1,310**	--	**1,050**
Toluene	1,000	**433**	**93**	**4.6**	BRL<5.0	BRL<1.0	BRL<10.0	BRL<5.0	**5.8**	--	**6,290**	--	**1,450**
Total Xylenes	10,000	**6,920**	**1,420**	**14.1**	**145**	**2.1**	**758.7**	**198.1**	**39.6**	--	**9,070**	--	**5,016**
BTEX	--	**9,973**	**2,738**	**25.6**	**323.6**	**21.6**	**920.7**	**287.3**	**509.5**	--	**19,440**	--	**8,132**
Naphthalene	20	**632**	**304**	**1.3**	**93.7**	BRL<1.0	**438**	**103**	**224**	--	**824**	--	**352**
1,2,4-Timethylbenzene	5	**1,830**	**416**	**7.5**	**159**	**50.6**	**760**	**313**	**177**	--	**3,230**	--	**1,310**
1,3,5-Timethylbenzene	4	**507**	**136**	**2.5**	**55.6**	**3.4**	**252**	**135**	**64.6**	--	**905**	--	**363**
Methyl tert-butyl ether	40	**6,980**	**2,110**	**38.8**	**337**	**4.9**	BRL<10.0	**154**	**43.8**	--	**1,570**	--	BRL<50
EXTRACTABLE PETROLEUM HYDROCARBONS by EPA Method 8015B (mg/L)													
Fuel Oil #2	--	--	--	--	--	**6.7**	--	--	--	--	--	--	--
Unidentified (calculated as)	--	**6.8** (#2 fuel oil)	**13.2** (#2 fuel oil)	**0.5** (other oil)	**5.3** (#2 fuel oil)	--	**5.8** (#2 fuel oil)	**3.4** (#2 fuel oil)	**2.6** (#2 fuel oil)	--	**15.3** (#2 fuel oil)	--	**3.5** (#2 fuel oil)
EXTRACTABLE PETROLEUM HYDROCARBONS by EPA Method 8100 (mg/kg)													
Fuel Oil #2	--	--	--	--	--	--	--	--	--	--	--	--	--
Unidentified	--	--	--	--	--	--	--	--	--	**70,200** (#2 fuel oil & gasoline)	--	**23,200** (#2 fuel oil & gasoline)	--

Notes:

-- - not analyzed or not applicable

µg/kg – micrograms per kilogram

µg/L - micrograms per liter

BRL – Below reportable detection limit

mg/L - milligrams per liter

Other Oil - includes lubricating and cutting oil, and silicon oil

Unidentified - unidentified petroleum product is detected and quantified using a calibration that most closely approximates the distribution of compounds in the sample.

VGES - Vermont Groundwater Enforcement Standards (exceedences are shaded)

Table 4.
Summary of Groundwater Analytical Results

521 Bay Street
St. Johnsbury, VT

OFF-SITE MONITORING WELLS													
Sample Identification	***VGES***	MW-7	MW-8	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31	MW-32	MW-2 (existing well)	MW-101 (existing well)	MW-1R (existing well)
Sampling Date		7/29/05	7/29/05	10/19/05	10/19/05	10/19/05	10/19/05	10/19/05	10/19/05	10/19/05	7/29/05	7/29/05	7/29/05
VOLATILE ORGANIC COMPOUBRLS by EPA Method 8260B (µg/L)													
Benzene	5	--	**17.7**	BRL<1.0	BRL<1.0	--	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	**150**	BRL<1.0	BRL<1.0
Ethylbenzene	700	--	BRL<1.0	BRL<1.0	BRL<1.0	--	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	**121**	BRL<1.0	BRL<1.0
Toluene	1,000	--	BRL<1.0	BRL<1.0	BRL<1.0	--	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	**25.7**	BRL<1.0	BRL<1.0
Total Xylene	10,000	--	BRL<2.0	BRL<2.0	BRL<2.0	--	BRL<2.0	BRL<2.0	BRL<2.0	BRL<2.0	**437**	BRL<2.0	BRL<2.0
BTEX	--	--	**17.7**	BRL	BRL	--	BRL	BRL	BRL	BRL	**733.7**	BRL	BRL
Naphthalene	20	--	BRL<1.0	BRL<5.0	BRL<5.0	--	BRL<5.0	**2.2**	BRL<5.0	BRL<5.0	**50.6**	BRL<1.0	BRL<1.0
1,2,4 Trimethylbenzene	5	--	BRL<1.0	BRL<1.0	BRL<1.0	--	BRL<1.0	**2.0**	BRL<1.0	BRL<1.0	**126**	BRL<1.0	BRL<1.0
1,3,5 Trimethylbenzene	4	--	BRL<1.0	BRL<1.0	BRL<1.0	--	BRL<1.0	**1.1**	BRL<1.0	BRL<1.0	**41.3**	BRL<1.0	BRL<1.0
MTBE	40	--	**61.6**	BRL<1.0	BRL<1.0	--	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<10.0	BRL<1.0	BRL<1.0
EXTRACTABLE PETROLEUM HYDROCARBONS by EPA Method 8015B (mg/L)													
Fuel Oil #2	--	--	--	BRL<0.2	BRL<0.2	--	BRL<0.2	--	--	BRL<0.2	--	--	--
Unidentified (calculated as)	--	--	**5.4** (#2 fuel oil)	--	--	**--**	--	**4.7** (#2 fuel oil)	**0.7** (other oil)	--	**1.7** (#2 fuel oil)	**0.4** (other oil)	**0.5** (other oil)
EXTRACTABLE PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS by EPA Method 8100 (mg/kg)													
Fuel Oil #2	--	**201,000**	--	--	--	--	--	--	--	--	--	--	--
Unidentified (calculated as)	--	--	--	--	--	**1,000,000** (gasoline)	--	--	--	--	--	--	--

Notes:

-- - not analyzed or not applicable

µg/kg – micrograms per kilogram

µg/L - micrograms per liter

BRL – Below reportable detection limit

mg/L - milligrams per liter

Other Oil - includes lubricating and cutting oil, and silicon oil

Unidentified - unidentified petroleum product is detected and quantified using a calibration that most closely approximates the distribution of compounds in the sample.

VGES - Vermont Groundwater Enforcement Standards (exceedences are shaded)

Table 4.
Summary of Groundwater Analytical Results

521 Bay Street
St. Johnsbury, VT

QA/QC SAMPLES									
Sample Identification	***VGES***	Trip	Duplicate	Original Sample (MW-16)	% difference	Trip	Duplicate	Original Sample (MW-30)	% difference
Sampling Date		7/29/05	7/29/05	7/29/05	--	10/19/05	10/19/05	10/19/05	--
VOLATILE ORGANIC COMPOUBRLS (µg/L)									
Benzene	5	BRL<1.0	**572**	**453**	23	BRL<1.0	BRL<1.0	BRL<1.0	--
Ethylbenzene	700	BRL<1.0	**11.8**	**11.1**	6	BRL<1.0	BRL<1.0	BRL<1.0	--
Toluene	1,000	BRL<1.0	BRL<10.0	**5.8**	--	BRL<1.0	BRL<1.0	BRL<1.0	--
Total Xylene	10,000	BRL<2.0	**43.3**	**39.6**	9	BRL<2.0	BRL<2.0	BRL<2.0	--
BTEX	--	--	**627.1**	**509.5**	21	--	BRL	BRL	--
Naphthalene	20	BRL<1.0	**163**	**224**	32	BRL<1.0	**1.8**	**2.2**	20
1,2,4 Trimethylbenzene	5	BRL<1.0	**175**	**177**	1	BRL<1.0	**2.0**	**2.0**	0
1,3,5 Trimethylbenzene	4	BRL<1.0	**67.5**	**64.6**	4	BRL<1.0	**1.1**	**1.1**	0
MTBE	40	BRL<1.0	**44.1**	**43.8**	1	BRL<1.0	BRL<1.0	BRL<1.0	--
EXTRACTABLE PETROLEUM HYDROCARBONS (mg/kg)									
Fuel Oil #2	--	--	--	--	--	--	--	--	--
Unidentified	--	--	**2.1** (#2 fuel oil)	**2.6** (#2 fuel oil)	21	--	**4.9** (#2 fuel oil)	**4.7** (#2 fuel oil)	4
EXTRACTABLE PETROLEUM HYDROCARBONS (mg/kg)									
Fuel Oil #2	--	--	--	--	--	--	--	--	--
Unidentified	--	--	--	--	--	--	**--**	**--**	--

Notes:
-- - not analyzed or not applicable
µg/kg – micrograms per kilogram
µg/L - micrograms per liter
BRL – Below reportable detection limit
mg/L - milligrams per liter
Other Oil - includes lubricating and cutting oil, and silicon oil
Unidentified - unidentified petroleum product is detected and quantified using a calibration that most closely approximates the distribution of compounds in the sample.
VGES - Vermont Groundwater Enforcement Standards (exceedences are shaded)

APPENDIX A

SOIL BORING LOGS AND WELL CONSTRUCTION DIAGRAMS

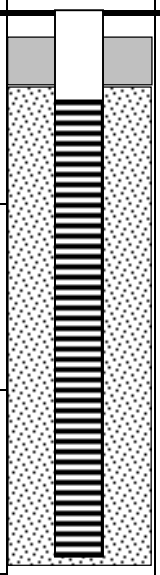
63 Millet Street, Suite 301 (802) 434-4500
Richmond, Vermont 05477 (802) 434-6076 - fax

BORING / WELL IDENTIFICATION: SB-1/MW-1

Site Name:	Northern Petroleum-521 Bay Street
Site Location:	521 Bay Street, St. Johnsbury, Vermont
Installation Date:	18 July 2005
Job Number:	08-204262.00

Well Depth:	12'	Boring Depth:	12'	ECS Representative:	Kim Lockard, Matt Guerino
Depth to Water (during drilling):	6'			Drilling Company:	ECS Agawam
Screen Diameter:	1-inch	Depth:	2-12 ft bgs	Boring Type	Geoprobe direct-push
Screen Type/Size:	0.010 slot schedule 40 PVC			Sampling Method:	Disposable Liner
Riser Diameter:	1-inch	Depth:	0-2 ft bgs	Reference Point (RP):	Grade
Riser Type/Size:	Schedule 40 PVC			Elevation of RP:	Not measured
Remarks:					

Depth (in feet)	Sample ID	Sample Depth (ft)	Blows /6"	Recovery (feet)	Sample Description and Notes	PID (ppm)
0		0-4		3.0	0-3.0' Olive gray, Fine to medium sand with some gravel, dry	145
1						
2						
3						
4		4-8		3.0	0-3.0' Gray stained, fine sand, odor, wet 2.0 ' below boring.	226
5		▼				
6						
7						
8		8-12		4.0	0-4.0' Same as above.	158.3
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						



Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

Blow Count (Cohesive Soils)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

Blow Count (Granular Soils)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
RICHMOND, VERMONT 05477 (802) 434-6076 - FAX

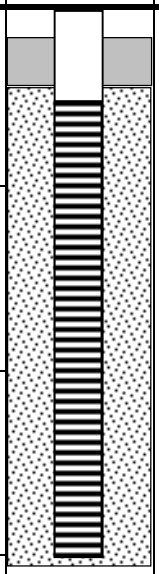
BORING / WELL IDENTIFICATION: SB-2/MW-2

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**6'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		3.0	0-3.0' Yellow-brown, fine sand with little gravel and little silt-trace of coarse sand, dry.	3.8
1						
2						
3						
4		4-8		3.0	0-3.0' Black stained, silt with organics, wet 2.0' below boring, and sampled 1.5' above groundwater table.	202
5	SB2~ 5'	▼				
6						
7						
8		8-12		3.0	0-3.0' Same as above, sheen throughout.	225.8
9						
10						
11	SB2~ 11'					
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- Water Level

PROPORTIONS USED

AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)

<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)

0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
RICHMOND, VERMONT 05477 (802) 434-6076 - FAX

BORING / WELL IDENTIFICATION: SB-3

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:		*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):		**6'**		*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:		*DEPTH:*		*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:				*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:		*DEPTH:*		*REFERENCE POINT (RP):*	
RISER TYPE/SIZE:				*ELEVATION OF RP:*	
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND
0		0-4		3.0	0-3.0' Yellow-brown, fine sand with some silt, dry, stained 2.5 bgs.	1.4	No Well	Concrete, Native Material, Bentonite, Filter Sand, Riser, Screen, Water Level
1								
2								
3								
4		4-8		3.0	0-3.0' Yellow-brown, very fine sand to silt, groundwater level 2.0' below boring, staining 1.0' above groundwater table, no staining on water table.	1.2		
5		▼						
6								
7								
8		8-12		3.5	0-2.5' same as above. 2.5-3.0' Gray, fine sand. 3.0-3.5' Gray, coarse sand and gravel.	1.5		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

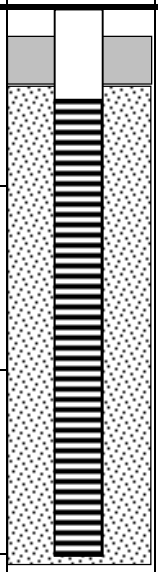
Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
RICHMOND, VERMONT 05477 (802) 434-6076 - FAX

BORING / WELL IDENTIFICATION: SB-4/MW-4

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**5'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND
0		0-4		2.0	0-1.25' Yellow-brown, fine sand and silt, dry. 1.25-2.0' Black staining, weathered soils, fine sand and silt, dry.	10.2		Concrete Native Material Bentonite Filter Sand Riser Screen Water Level
1								
2								
3								
4		4-8 ▼		2.0	0-2" of dry cement. 2'-2'Gray, fine sand and very little silt, odor, wet 5' bgs.	23.8		
5								
6								
7								
8		8-12		2.0	0-2.0' Same as above.			
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
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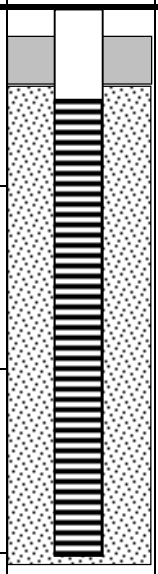
BORING / WELL IDENTIFICATION: SB-5/MW-5

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**8'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		3.0	0-3.0' Gray to black, fine sand with gravel., black staining has slight odor, dry.	18.2
1						
2						
3						
4		4-8		3.0	0-3.0' Gray to black, fine sand with silt, odor, moist, groundwater level 8' bgs.	97.8
5						
6						
7		▼				
8	SB5~ 8'	8-12		2	0-1.5' Dark brown, fine sand with some cobbles, some organics. 1.5-2.0' Gray, coarse sand and gravel.	25
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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Richmond, Vermont 05477 (802) 434-6076 - fax

BORING / WELL IDENTIFICATION: **SB-6**

Site Name:	**Northern Petroleum-521 Bay Street**
Site Location:	**521 Bay Street, St. Johnsbury, Vermont**
Installation Date:	**18 July 2005**
Job Number:	**08-204262.00**

Well Depth:		*Boring Depth:*	**12'**	*ECS Representative:*	**Kim Lockard, Matt Guerino**
Depth to Water (during drilling):		**7.5'**		*Drilling Company:*	**ECS Agawam**
Screen Diameter:		*Depth:*		*Boring Type*	**Geoprobe direct-push**
Screen Type/Size:				*Sampling Method:*	**Disposable Liner**
Riser Diameter:		*Depth:*		*Reference Point (RP):*	
Riser Type/Size:				*Elevation of RP:*	
Remarks:					

Depth (in feet)	Sample ID	Sample Depth (ft)	Blows /6"	Recovery (feet)	Sample Description and Notes	PID (ppm)	Well Profile	Legend
0		0-4		2.5	0-2.0' Brown, fine sand with 2" layer of coarse sand, dry, no odor. 2.0-2.5 Brown to dark brown, fine sand, dry.	1.6	No Well	Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level
1								
2								
3								
4		4-8		3.0	0-1.5' Light brown with layers of yellow, fine sand, moist 1.5-3.0' Brown, fine sand, wet 3.5' below boring.	2.6		
5								
6								
7		▼						
8		8-12		3.0	0-3.0' Brown, fine sand, wet.	1.7		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

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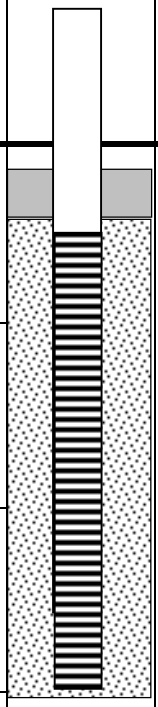
BORING / WELL IDENTIFICATION: SB-7/MW-7

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

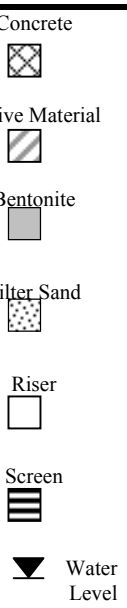
WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**6'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		1.5	0-1.5' Brown, fine sand with organics, dry. Very strong petroleum odor.	24.8
1						
2						
3						
4		4-8		1.5	0-1.5' Gray with brown staining, grading coarse to medium sand, wet at 2' below boring.	32.9
5		▼				
6						
7						
8		8-12		2.0	0-2.0' Gray, grading C gravel to F gravel with some fine sand.	29.8
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND



PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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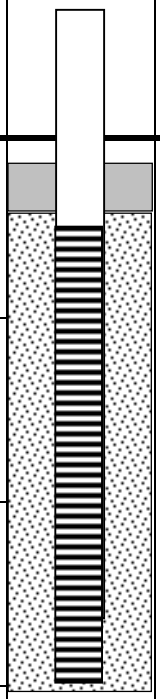
BORING / WELL IDENTIFICATION: SB-8/MW-8

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

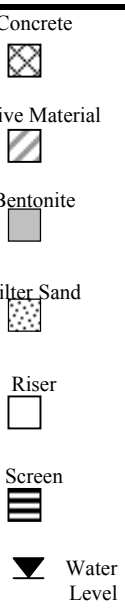
WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**4'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		1.5	0-1.5' Brown, fine sand with organics, dry.	2.4
1						
2						
3			▼			
4		4-8		3.0	0-3.0' Gray, grading fine sand to coarse sand with some gravel, boring saturated.	12.8
5						
6						
7						
8		8-12		3.0	0-3.0' Gray, coarse sand with gravel.	20.3
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND



PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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BORING / WELL IDENTIFICATION: **SB-9**

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:		*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):		**3.5'**		*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:		*DEPTH:*		*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:				*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:		*DEPTH:*		*REFERENCE POINT (RP):*	
RISER TYPE/SIZE:				*ELEVATION OF RP:*	
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND
0		0-4		3.0	0-3.0' Brown, fine sand, saturation at 3' with little gravel and organics.	1.5	No Well	Concrete
1								Native Material
2		▼						
3								Bentonite
4		4-8		1.5	0-1.5' Black, fine sand and gravel with little silt, saturated, old petroleum odor.	2.1		
5								Filter Sand
6								
7								Riser
8		8-12		3.0	0-3.0' Gray-brown, coarse sand and gravel, saturated, old petroleum odor.	2.0		
9								Screen
10								
11								Water Level
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

PROPORTIONS USED		BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

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BORING / WELL IDENTIFICATION: **SB-10**

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:		*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):		**5.5'**		*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:		*DEPTH:*		*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:				*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:		*DEPTH:*		*REFERENCE POINT (RP):*	
RISER TYPE/SIZE:				*ELEVATION OF RP:*	
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND
0		0-4		3.5	0-3.5' Brown-green with black staining, grading fine to coarse sand with little gravel and trace of silt, dry.	2.0	No Well	Concrete, Native Material, Bentonite, Filter Sand, Riser, Screen, Water Level
1								
2								
3								
4		4-8		3.0	0-3.0' Brown with black to gray organics, silt with some fine sand, wet 1.5 below boring, old odor.	5.7		
5		▼						
6								
7								
8		8-12		3.0	0-3.0' Brown, silt with medium-fine sand with trace of gravel, saturated, no odor, at 2.0' below boring 2" of gravel.	2.0		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
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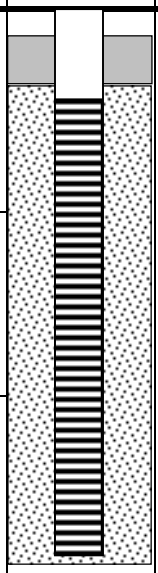
BORING / WELL IDENTIFICATION: SB-11/MW-11

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**6'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		2.0	0-2.0' Light brown to brown with bottom 3" black staining, no odors, dry.	1.9
1						
2						
3						
4		4-8		4.0	0-4.0' Gray, silt with organics, wet 2.0' below boring, sheen on groundwater level.	131.6
5						
6		▼				
7						
8		8-12		3.0	0-1.5' Same as above. 1.5-3.0' Brown, coarse sand and gravel, sheen and oil globules throughout.	127.6
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						



WELL PROFILE

LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- ▼ Water Level

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
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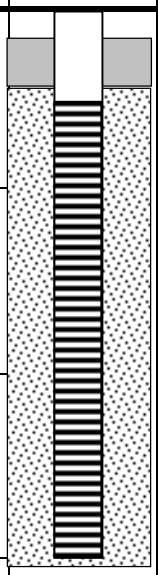
BORING / WELL IDENTIFICATION: SB-12/MW-12

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**5.5'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		3.0	0-3.0' Gray, fine sand and silt, last 6" strong odor.	76.4
1						
2						
3						
4		4-8		3.0	0-3.0' Gray to black staining, fine sand and silt, first 1.0' moist, saturated below this level, strong odor.	89.5
5		▼				
6						
7						
8		8-12		3.0	0-2.0' As above. 2.0-2.3' Brown, silt with organics, dry. 2.3-3.0' Coarse Sand with gravel, stained.	83
9						
10						
11	SB12 ~11'					
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- ▼ Water Level

PROPORTIONS USED

AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)

<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)

0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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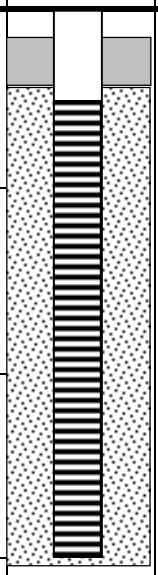
BORING / WELL IDENTIFICATION: SB-13/MW-13

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**5.5'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		4.0	0-4.0' Brown, fine sand with little gravel, dry.	20.5
1						
2						
3						
4	SB13 ~4'	4-8		4.0	0-4.0' Gray-brown, fine sand with organics, saturated at 1.5' below boring, strong odor, sheen.	166.8
5		▼				
6	SB13 ~7'					
7						
8		8-12		4.0	0-3.0' Same as above. 3.0-4.0' Light brown, coarse sand and gravel, strong odor, sheen.	65
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND

Concrete

Native Material

Bentonite

Filter Sand

Riser

Screen

Water Level

PROPORTIONS USED

AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)

<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)

0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
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BORING / WELL IDENTIFICATION: **SB-14**

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:		*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):		**6'**		*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:		*DEPTH:*		*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:				*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:		*DEPTH:*		*REFERENCE POINT (RP):*	
RISER TYPE/SIZE:				*ELEVATION OF RP:*	
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND
0		0-4		2.0	0-1.5' Light brown, fine to medium sand, dry. 1.5-2.0 Light brown, fine sand, dry.	2.2	No Well	Concrete Native Material Bentonite Filter Sand Riser Screen Water Level
1								
2								
3								
4		4-8		3.0	Light brown, fine sand, wet 1.0' below boring	3.2		
5		▼						
6								
7								
8		8-12		3.5	0-1.5' Olive gray, fine sand with some silt, PID reading. 1.5-2.5' Gray, fine sand with some silt, PID reading. 2.5-3.5' Light brown, medium sand with some gravel.	3.2 4.5		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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Richmond, Vermont 05477 (802) 434-6076 - fax

BORING / WELL IDENTIFICATION: **SB-15**

Site Name:	**Northern Petroleum-521 Bay Street**
Site Location:	**521 Bay Street, St. Johnsbury, Vermont**
Installation Date:	**18 July 2005**
Job Number:	**08-204262.00**

Well Depth:		*Boring Depth:*	**12'**	*ECS Representative:*	**Kim Lockard, Matt Guerino**
Depth to Water (during drilling):	**5'**			*Drilling Company:*	**ECS Agawam**
Screen Diameter:		*Depth:*		*Boring Type*	**Geoprobe direct-push**
Screen Type/Size:				*Sampling Method:*	**Disposable Liner**
Riser Diameter:		*Depth:*		*Reference Point (RP):*	
Riser Type/Size:				*Elevation of RP:*	
Remarks:					

Depth (in feet)	Sample ID	Sample Depth (ft)	Blows /6"	Recovery (feet)	Sample Description and Notes	PID (ppm)	Well Profile	Legend
0		0-4		3.0	0-0.5' Gray, medium sand with some coarse to fine sand, dry. 0.5-1.5' Light brown, same as above 1.5-2.0 Olive gray, same as above 2.0-3.0' Gray, same as above	3.6	No Well	Concrete Native Material Bentonite Filter Sand Riser Screen Water Level
1								
2								
3								
4		4-8 ▼		4.0	0-3.5' Gray fine sand with some silt, wet 1.0' below boring. 3.5-4.0' Olive gray, fine sand and silt.	11		
5								
6								
7								
8		8-12		4.0	0-2.5' Gray, fine sand with some silt. 2.5-3.0' Olive gray, same as above. 3.0-3.5' Gray, fine sand with some medium silt. 3.5-4.0' Light brown, gravel with some medium and fine sand.	3.0		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

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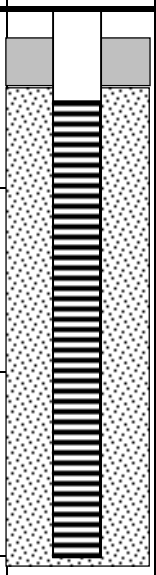
BORING / WELL IDENTIFICATION: SB-16/MW-16

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**5'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		4.0	0-1.0' Gray, coarse sand with some medium sand, PID reading, dry. 1.0-2.0' Light brown, same as above, dry. 2.0-2.5' Black staining, same as above, PID reading. 2.5-4.0' Gray, fine sand with some medium sand, dry.	5.3 33
1						
2						
3						
4		4-8 ▼		3.0	0-1.0' Gray, fine sand with some medium sand, dry. 1.0-3.0 Gray, same as above, wet, sheening throughout, PID at water table.	53
5						
6						
7						
8		8-12		4.0	0-1.5' Gray fine sand with some medium sand, sheening. 1.5-3.0' Light brown, fine sand with some medium sand. 3.0-4.0' Light brown, coarse sand and gravel. PID readings at 8' and 12'.	45 7
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						



LEGEND

- Concrete
- Native Material
- Bentonite
- Filter Sand
- Riser
- Screen
- ▼ Water Level

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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BORING / WELL IDENTIFICATION: SB-17/MW-17

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**5'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS/6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		3.0	0-1.0' Light brown, medium sand with some coarse sand, dry, odor throughout.	
1					1.0-1.5' Black staining, medium to fine sand, PID reading.	9.5
2	SB17~2.5'				1.5-2.0' Cement	321
3					2.0-2.5' Gray, medium to fine sand, PID reading. 2.5-3.0' same as above, PID reading.	310
4		4-8 ▼		3.0	0-3.0' Olive gray, fine sand and silt, strong odor, sheen throughout, wet 1.0' below boring.	338
5	SB17~5.0'					
6						
7						
8		8-12		4.0	0-3.5' Gray, fine sandn and silt, brown mottling at 2.5' 3" in length, Sheen throughout, strong odor. 3.5-4.0' Gray, coarse sand and gravel.	184
9						
10						
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12						
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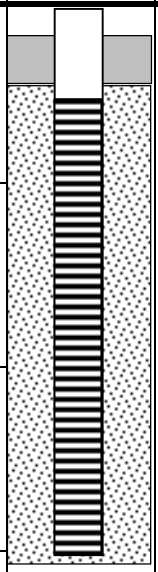
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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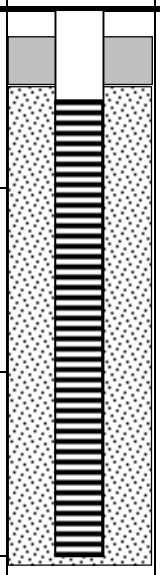
BORING / WELL IDENTIFICATION: SB-18/MW-18

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:	**12'**	*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):	**5'**			*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:	**1-inch**	*DEPTH:*	**2-12 ft bgs**	*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:	**0.010 slot schedule 40 PVC**			*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:	**1-inch**	*DEPTH:*	**0-2 ft bgs**	*REFERENCE POINT (RP):*	**Grade**
RISER TYPE/SIZE:	**Schedule 40 PVC**			*ELEVATION OF RP:*	**Not measured**
REMARKS:	Fresh staining around drilling area 10' by 10'.				

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS/6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		3.0	0-1.0' Gray, medium sand with some coarse sand, dry, PID reading, strong odor throughout.	
1					1.0-2.0' Dark brown, same as above, PID reading.	585
2					2.0-3.0' Light brown, same as above, PID reading.	395
3						543
4	SB18~4.0'	4-8 ▼		3.0	0-3.0' Gray, fine sand with silt, wet 1.0' below boring, sheen below water level, strong odor throughout.	
5						
6	SB18~6.0'					
7						
8		8-12		3.0	0-2.5' Gray sand with some silt, strong odor throughout.	207
9					2.5'-3.0 Gray medium sand with some gravel.	
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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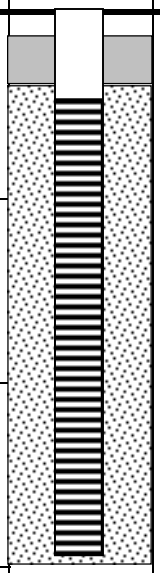
BORING / WELL IDENTIFICATION: SB-19/MW-19

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:		BORING DEPTH:	**12'**	ECS REPRESENTATIVE:	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):		**5'**		DRILLING COMPANY:	**ECS Agawam**
SCREEN DIAMETER:		DEPTH:		BORING TYPE	**Geoprobe direct-push**
SCREEN TYPE/SIZE:				SAMPLING METHOD:	**Disposable Liner**
RISER DIAMETER:		DEPTH:		REFERENCE POINT (RP):	
RISER TYPE/SIZE:				ELEVATION OF RP:	
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)
0		0-4		3.0	0-1.5' Light brown, medium sand with some coarse sand, dry. Black staining, same as above, odor, dry, PID reading.	23
1						
2						
3						
4		4-8 ▼		3.0	0-3.0' Black to dark gray, fine sand and silt, wet 1.0' below boring, PID reading below groundwater level.	279
5						
6						
7						
8		8-12		3.0	0-2.5' Gray, fine sand and silt, strong odor throughout. 2.5-3.0' light brown, gravel with medium sand.	472
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

WELL PROFILE



LEGEND

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

63 MILLET STREET, SUITE 301 (802) 434-4500
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BORING / WELL IDENTIFICATION: **SB-20**

SITE NAME:	**Northern Petroleum-521 Bay Street**
SITE LOCATION:	**521 Bay Street, St. Johnsbury, Vermont**
INSTALLATION DATE:	**18 July 2005**
JOB NUMBER:	**08-204262.00**

WELL DEPTH:		*BORING DEPTH:*	**12'**	*ECS REPRESENTATIVE:*	**Kim Lockard, Matt Guerino**
DEPTH TO WATER (DURING DRILLING):		**4'**		*DRILLING COMPANY:*	**ECS Agawam**
SCREEN DIAMETER:		*DEPTH:*		*BORING TYPE*	**Geoprobe direct-push**
SCREEN TYPE/SIZE:				*SAMPLING METHOD:*	**Disposable Liner**
RISER DIAMETER:		*DEPTH:*		*REFERENCE POINT (RP):*	
RISER TYPE/SIZE:				*ELEVATION OF RP:*	
REMARKS:					

DEPTH (IN FEET)	SAMPLE ID	SAMPLE DEPTH (FT)	BLOWS /6"	RECOVERY (FEET)	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND
0		0-4		3.0	Lt. Brn f – m SAND, little gravel, dry, no orders. 6' – layer of black stained soils with organics @ 1.5'.	6.7	No Well	Concrete
1								Native Material
2								
3								Bentonite
4		4-8 ▼		4.0	Top 2ft – Olive brn, f SAND grading to m – f SAND; wet. Bottom 1 + - f SAND, trace silt; slight odor	6.3		Filter Sand
5								
6								Riser
7								
8		8-12		3.0	Top 2 ft – as above. Bottom 1 ft – c SAND and GRAVEL; PID @ 11 ft.	5.0		Screen
9								
10								Water Level
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

PROPORTIONS USED	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

BLOW COUNT (COHESIVE SOILS)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

BLOW COUNT (GRANULAR SOILS)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

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BORING / WELL IDENTIFICATION: **SB-21**

Site Name:	**Northern Petroleum-521 Bay Street**
Site Location:	**521 Bay Street, St. Johnsbury, Vermont**
Installation Date:	**18 July 2005**
Job Number:	**08-204262.00**

Well Depth:		*Boring Depth:*	**12'**	*ECS Representative:*	**Kim Lockard, Matt Guerino**
Depth to Water (during drilling):	**5'**			*Drilling Company:*	**ECS Agawam**
Screen Diameter:		*Depth:*		*Boring Type*	**Geoprobe direct-push**
Screen Type/Size:				*Sampling Method:*	**Disposable Liner**
Riser Diameter:		*Depth:*		*Reference Point (RP):*	
Riser Type/Size:				*Elevation of RP:*	
Remarks:					

Depth (in feet)	Sample ID	Sample Depth (ft)	Blows /6"	Recovery (feet)	Sample Description and Notes	PID (ppm)	Well Profile	Legend
0		0-4		3.0	0-1.0' Light brown, medium sand with some fine sand, dry. 1.0-2.0' Dark brown, same as above, dry. 2.0-2.5' Dark brown, medium to coarse sand and gravel, dry. 2.5-3.0' Light brown fine sand and silt, dry.	3.0	No Well	Concrete Native Material Bentonite Filter Sand Riser Screen Water Level
1								
2								
3								
4		4-8 ▼		4.0	0-3.0' Light brown, fine sand with some silt, brown mottling bottom 2', wet 1' below boring, Brown mottling bottom 2.0', PID reading at groundwater level.	3.2		
5								
6								
7								
8		8-12		2.0	0-1.0' Light brown, fine sand with some silt. 1.0-2.0' Gray, coarse sand and gravel.			
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

Proportions Used		Blow Count (Cohesive Soils)		Blow Count (Granular Soils)		Notes:
AND	33-50%	<2	VERY SOFT	0-4	VERY LOOSE	
SOME	20-33%	2-4	SOFT	4-10	LOOSE	
LITTLE	10-20%	4-8	MEDIUM STIFF	10-30	MEDIUM DENSE	
TRACE	0-10%	8-15	STIFF	30-50	DENSE	
		15-30	VERY STIFF	>50	VERY DENSE	
		>30	HARD			

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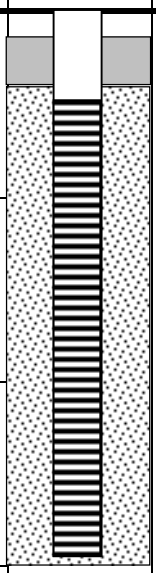
BORING / WELL IDENTIFICATION: SB-22/MW-22

Site Name:	**Northern Petroleum-521 Bay Street**
Site Location:	**521 Bay Street, St. Johnsbury, Vermont**
Installation Date:	**18 July 2005**
Job Number:	**08-204262.00**

Well Depth:	**12'**	*Boring Depth:*	**12'**	*ECS Representative:*	**Kim Lockard, Matt Guerino**
Depth to Water (during drilling):	**5'**			*Drilling Company:*	**ECS Agawam**
Screen Diameter:	**1-inch**	*Depth:*	**2-12ft bgs**	*Boring Type*	**Geoprobe direct-push**
Screen Type/Size:	**0.010 slot schedule 40 PVC**			*Sampling Method:*	**Disposable Liner**
Riser Diameter:	**1-inch**	*Depth:*	**0-2 ft bgs**	*Reference Point (RP):*	**Grade**
Riser Type/Size:	**Schedule 40 PVC**			*Elevation of RP:*	**Not measured**
Remarks:					

Depth (in feet)	Sample ID	Sample Depth (ft)	Blows /6"	Recovery (feet)	Sample Description and Notes	PID (ppm)
0		0-4		3.0	0-2.5' Light brown to gray, medium sand with some fine sand, dry.	
1					2.5-3.0' Black staining, fine sand and silt, dry.	5.2
2					PID readings taken at 1',2', and 3' b.g.s..	13.0
3						8.0
4		4-8 ▼		3.0	0-3.0' Gray, fine sand with some silt, wet 1.0' below boring, sheen below groundwater level.	
5						320
6					PID readings at groundwater level and 8'.	
7						450
8		8-12		3.0	0-2.0' Gray, fine sand and silt, sheening that appears to be free product.	
9					2.0-3.0' Gray, coarse sand and some gravel with some fine sand.	250
10					PID readings at 9.5' and 11'	475
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						



Legend: Concrete; Native Material; Bentonite; Filter Sand; Riser; Screen; Water Level

Proportions Used	
AND	33-50%
SOME	20-33%
LITTLE	10-20%
TRACE	0-10%

Blow Count (Cohesive Soils)	
<2	VERY SOFT
2-4	SOFT
4-8	MEDIUM STIFF
8-15	STIFF
15-30	VERY STIFF
>30	HARD

Blow Count (Granular Soils)	
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM DENSE
30-50	DENSE
>50	VERY DENSE

Notes:

APPENDIX B

FIELD NOTES

Environmental Compliance Services, Inc.
588 Silver Street, Agawam, Massachusetts 01001
MA: (413) 789-3530 FAX: (413) 789-2776

WELL SAMPLING LOG

Client: Northern Petroleum
Location: St. Johnsbury, VT. Bay St.
Personnel: Brian Bachmann / Matt Guerino

Job Number: 08-2042Ce2
Date: 7/29/05
Weather Conditions: Sunny 75°F.

Sheet 1 of 2

Well ID	D	Point of Reference (PVC/Rim)	Total Depth (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Water Height (feet)	Volume Purged (gallons)	Odors (Y/N)	PID Readings (ppmv)	Dissolved Oxygen (mg/L)	pH	Sp. Cond. (umhos/sec)	Temp (°C)	Sample Time	Comments
MW-22		0.15	11.21	ND	5.56		5.65	1.41							1345	Sheen odor
MW-2		0.10	10.82	ND	5.75		5.07	2.53							~~1500~~ 1500	
MW-101		0.10	11.40	ND	5.47		~~5.93~~ 5.93	1.48							1450	
MW-1R		0.05	12.22	ND	5.67		6.55	~~1.83~~ 1.83							1440	
~~Dup.~~															1320	

Instrumentation & Equipment	Manufacturer/Model	I.D.	Calibration	Decon	Notes
~~Stainless steel bailers~~	~~NA~~		~~NA~~	~~Alconox, methanol, DI~~	
~~Water Level Indicator~~	~~Slope~~		~~NA~~	~~Methanol, DI~~	
~~Temp-cond-pH meters~~	Corning			~~Methanol, DI~~	

D = Well diameter in inches.

Environmental Compliance Services, Inc.
588 Silver Street, Agawam, Massachusetts 01001
MA: (413) 789-3530 FAX: (413) 789-2776

WELL SAMPLING LOG

Client: NORTHERN PETROLEUM
Location: ST. JOHNSBURY
Personnel: M. GUERINO & B. BACHMAN
Job Number: 08-204262
Date: 7/29/05
Weather Conditions: SUNNY 75°F
Sheet 1 of 2

Well ID	D	Point of Reference (PVC/Rim)	Total Depth (feet)	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Water Height (feet)	Volume Purged (gallons)	Odors (Y/N)	PID Readings (ppmv)	Dissolved Oxygen (mg/L)	pH	Sp. Cond. (umhos/sec)	Temp (°C)	Sample Time	Comments
MW-1		~~Ow.TOC~~ PVC	10.97	ND	5.57		5.40	~~25.9~~ (1.1)	Y						1355	
MW-2		0.15	10.30	ND	5.79		4.49	~~18.5~~ (1.0)	Y						1400	Sheen, odor
MW-4		0.20	10.90	ND	5.05		5.85	~~23.7~~ (1.2)							1445	GREY SILT, SCREEN ODOR
MW-5		0.20	10.92	ND	4.91		6.01	~~24.8~~ (1.3)							1440	GREY SILT, SCREEN ODOR
MW-7		2.95 AGS	14.60	6.45	7.00	0.55									1405	PRODUCT FOUND 1 1/2" ~~BAILED~~ 8100
MW-8		3.40 AGS	14.86	ND	6.60		8.26	2.07							1430	
MW-11		0.15	10.80	ND	3.60		7.20	1.80							1435	GREY SILT, SCREEN, ODOR
MW-12		0.15	10.32	ND	4.91		5.41	1.32	Y						1430	GREY SILT, SCREEN, ODOR
MW-13		0.15	10.75	ND	4.98		5.78	1.47							1425	Heavy Sheen, ODOR
MW-16		0.15	11.12	ND	5.42	—	5.70	~~32.5~~ (1.4)							1320	Duplicate
MW-17		0.25	11.10	ND	5.55	—	5.55	~~22.2~~ (1.38)	Y						11:45	STRONG ODOR ON, NFP PRODUCT FOUND 0.5" IN BAILER 8100
MW-18		0.15	10.88	ND	5.58	—	5.30	~~21.2~~ (1.34)							1335	Heavy Sheen ODOR
MW-19		0.15	10.90	ND	5.55		5.35	~~21.4~~ (1.35)	Y						1325	PRODUCT 0.1" IN BAILER 8100

Instrumentation & Equipment	Manufacturer/Model	I.D.	Calibration	Decon	Notes
~~Stainless steel bailers~~ Disp. Bailers	NA		NA	~~NA~~ ~~Alconox~~, methanol, DI	
~~Water Level Indicator~~ Solinst I.F.P.	Solinst ~~Slope~~		~~NA~~	S.G. ~~Methanol~~, DI	
~~Temp-cond-pH meters~~ Survey Equip.	~~Corning~~	—	—	~~Methanol, DI~~	

D = Well diameter in inches.

10/19/05 NORTHERN PETROLEUM — WEATHER: MOSTLY CLOUDY, 50°F

ST. JOHNSBURY, VT

05-20926.00

10:15 - MO/BB ONSITE FOR OFF-SITE WELL SAMPLING AND SURVEY.

- BEGIN WELL GAUGING/SAMPLING

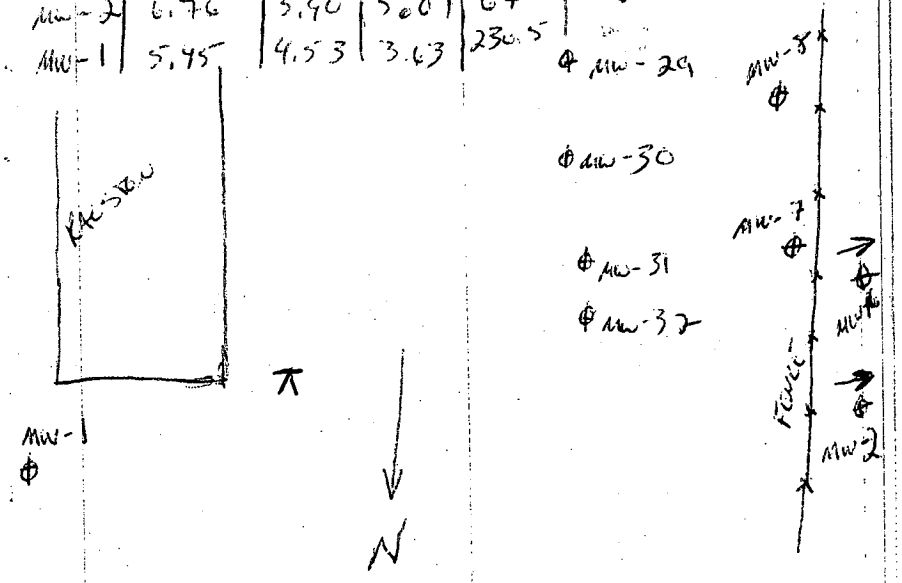
WELL ID	DTB	DTW (TOC or RIM)	PRESS	TIME	NOTES
MW-26	13.90	6.89	1.75	1335	
MW-27	14.30	7.03	1.82	1350	
MW-28	14.40	DTP 6.50 DTW 6.77	FP THICK 0.27'		RECOVER 10:41 F.P. FOR SAMPLE
MW-29	12.00	4.14	1.97	1205	
MW-30	12.00	4.37	1.91	1215	SHEEN STRONG ODOR STRONG
MW-31	12.00	4.13	1.97		
MW-32	12.00	3.89	2.03	1215	LT. SHEEN
DUPLICATE	COLLECTED FROM MW-30			1220	
TRIP	CREATED BY ECS			0830	
MW-1	12.50	6.71	1.45	1305	SHEEN

14:30 - DEPART SITE

10/19/05 NORTHERN PETROLEUM - SURVEY

SET UP #1

POINT	TOP	MID	BOT	$	
MW-29	8.21	6.68	5.15	0	306
MW-30	7.67	6.30	4.93	0	274
MW-31	7.59	6.36	5.15	2	244
MW-32	7.64	6.56	5.50	5	214
MW-7	7.16	5.81	4.46	7.5	PREVIOUS SURVEY 270
MW-8	7.10	5.60	4.10	6	300
MW-26	7.65		5.23	43.5	
MW-2	6.76	5.90	5.04	67	
MW-1	5.45	4.53	3.63	230.5	

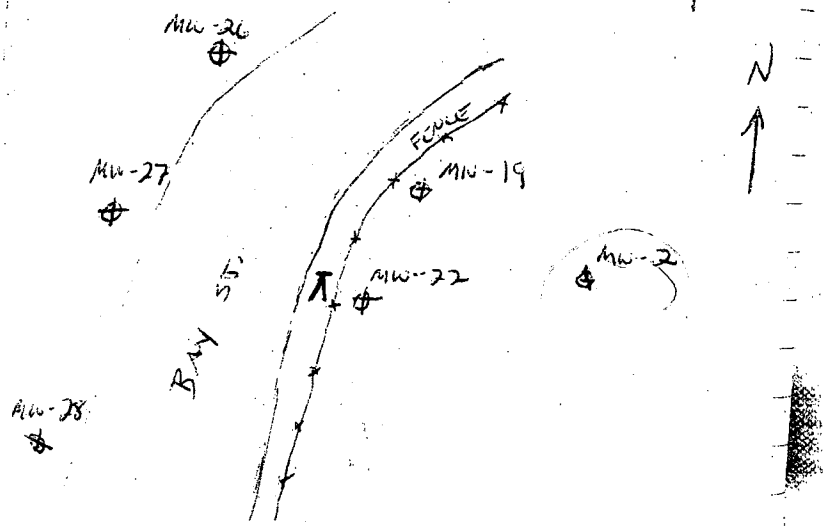


10/19/05 Northern Petroleum - Survey

SETUP #2

POINT	TOP	BOT	AVG	∠
MW-26	2.89	2.52	2.24	0
MW-27	2.62	2.42	2.22	330
MW-28	5.71	3.23	2.75	233
MW-19	5.45	5.29	5.14	51
MW-2	5.54	5.26	4.99	121
MW-22	5.41	5.37	5.33	113.5

NOTES:
STICK-U 65
" 40
" 96
EXISTING 31
55
8



APPENDIX C

LABORATORY ANALYTICAL REPORTS

Report Date:
09-Aug-05 13:52

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Environmental Compliance Services
65 Millet Street; Suite 301
Richmond, VT 05477
Attn: Ronald Miller

Project: 521 Bay St - St. Johnsbury, VT
Project #: 08-204262

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA31365-01	SB-1-2	Soil	18-Jul-05 09:15	21-Jul-05 08:40
SA31365-02	SB-1-8	Soil	18-Jul-05 09:30	21-Jul-05 08:40
SA31365-03	SB-2-3	Soil	18-Jul-05 09:45	21-Jul-05 08:40
SA31365-04	SB-2-3d	Soil	18-Jul-05 09:50	21-Jul-05 08:40
SA31365-05	SB-2-11	Soil	18-Jul-05 10:00	21-Jul-05 08:40
SA31365-06	SB-5-4 1/2	Soil	18-Jul-05 10:10	21-Jul-05 08:40
SA31365-07	SB-5-8	Soil	18-Jul-05 10:20	21-Jul-05 08:40
SA31365-08	SB-12-4	Soil	18-Jul-05 13:30	21-Jul-05 08:40
SA31365-09	SB-12-11	Soil	18-Jul-05 14:00	21-Jul-05 08:40
SA31365-10	SB-5-8d	Soil	18-Jul-05 10:30	21-Jul-05 08:40
SA31365-11	SB-13-4	Soil	18-Jul-05 15:00	21-Jul-05 08:40
SA31365-12	SB-13-7	Soil	18-Jul-05 15:30	21-Jul-05 08:40
SA31365-13	SB-18-4	Soil	19-Jul-05 09:30	21-Jul-05 08:40
SA31365-14	SB-18-6	Soil	19-Jul-05 10:00	21-Jul-05 08:40
SA31365-15	SB-17-2 1/2	Soil	19-Jul-05 08:00	21-Jul-05 08:40
SA31365-16	SB-17-5	Soil	19-Jul-05 08:15	21-Jul-05 08:40

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. All applicable NELAC requirements have been met.
Please note that this report contains 38 pages of analytical data plus Chain of Custody document(s).
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New Hampshire # 2538/2972
New York # 11393/11840
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

ACCREDITED IN ACCORDANCE WITH nelac

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

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RECEIVED
AUG 30 2005

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-1-2 SA31365-01	08-204262	Soil	18-Jul-05 09:15	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								VOC10
71-43-2	Benzene	BRL	1160 µg/kg dry	250	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	8,800	1160 µg/kg dry	250	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1160 µg/kg dry	250	"	"	"	"	"	
91-20-3	Naphthalene	23,800	1160 µg/kg dry	250	"	"	"	"	"	
108-88-3	Toluene	BRL	1160 µg/kg dry	250	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	82,800	1160 µg/kg dry	250	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	26,100	1160 µg/kg dry	250	"	"	"	"	"	
1330-20-7	m,p-Xylene	45,500	2320 µg/kg dry	250	"	"	"	"	"	
95-47-6	o-Xylene	8,530	1160 µg/kg dry	250	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*104*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.6*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*110*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	6,110	27.0 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	27.0 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	27.0 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	27.0 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	27.0 mg/kg dry	1	"	"	"	"	"	
	Unidentified	BRL	27.0 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	27.0 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	6,110	27.0 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*740*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	95.6	%	1	SM2540 G Mod.	28-Jul-05	28-Jul-05	5071771	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-1-8 SA31365-02	08-204262	Soil	18-Jul-05 09:30	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								R-05, VOC10
71-43-2	Benzene	2,100	1220 µg/kg dry	500	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	14,000	1220 µg/kg dry	500	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	12,800	1220 µg/kg dry	500	"	"	"	"	"	
91-20-3	Naphthalene	8,070	1220 µg/kg dry	500	"	"	"	"	"	
108-88-3	Toluene	1,510	1220 µg/kg dry	500	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	39,100	1220 µg/kg dry	500	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	12,300	1220 µg/kg dry	500	"	"	"	"	"	
1330-20-7	m,p-Xylene	60,500	2440 µg/kg dry	500	"	"	"	"	"	
95-47-6	o-Xylene	4,760	1220 µg/kg dry	500	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*103*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.6*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97.6*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	33.1 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
	Unidentified	1,750	33.1 mg/kg dry	1	"	"	"	"	"	
	Other Oil	Calculated as	33.1 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	1,750	33.1 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*220*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	78.2	%	1	SM2540 G Mod.	28-Jul-05	28-Jul-05	5071771	BD	
	Fractional Organic Carbon	0.0056	0.0001 N/A	1	SW846 9060	02-Aug-05	02-Aug-05	5080235	AW	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-2-3 SA31365-03	08-204262	Soil	18-Jul-05 09:45	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								R-05, VOC10
71-43-2	Benzene	4,720	1370 µg/kg dry	250	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	6,740	1370 µg/kg dry	250	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1370 µg/kg dry	250	"	"	"	"	"	
91-20-3	Naphthalene	14,700	1370 µg/kg dry	250	"	"	"	"	"	
108-88-3	Toluene	2,730	1370 µg/kg dry	250	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	57,600	1370 µg/kg dry	250	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	20,900	1370 µg/kg dry	250	"	"	"	"	"	
1330-20-7	m,p-Xylene	73,500	2740 µg/kg dry	250	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1370 µg/kg dry	250	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*106*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*110*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	38.5 mg/kg dry	1	8015BM/ME4.1 .25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	38.5 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	38.5 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	38.5 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	38.5 mg/kg dry	1	"	"	"	"	"	
	Unidentified	1,920	38.5 mg/kg dry	1	"	"	"	"	"	
	Other Oil	Calculated as	38.5 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	1,920	38.5 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*162*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	69.3	%	1	SM2540 G Mod.	28-Jul-05	28-Jul-05	5071771	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-2-3d SA31365-04	08-204262	Soil	18-Jul-05 09:50	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								R-05, VOC10
71-43-2	Benzene	4,370	3730 µg/kg dry	500	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	4,740	3730 µg/kg dry	500	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	3730 µg/kg dry	500	"	"	"	"	"	
91-20-3	Naphthalene	14,300	3730 µg/kg dry	500	"	"	"	"	"	
108-88-3	Toluene	BRL	3730 µg/kg dry	500	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	49,500	3730 µg/kg dry	500	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	18,300	3730 µg/kg dry	500	"	"	"	"	"	
1330-20-7	m,p-Xylene	70,000	7460 µg/kg dry	500	"	"	"	"	"	
95-47-6	o-Xylene	BRL	3730 µg/kg dry	500	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*102*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.6*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*108*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98.6*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	3,760	37.6 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	37.6 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	37.6 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	37.6 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	37.6 mg/kg dry	1	"	"	"	"	"	
	Unidentified	BRL	37.6 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	37.6 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	3,760	37.6 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*210*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	71.9	%	1	SM2540 G Mod.	28-Jul-05	28-Jul-05	5071771	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-2-11 SA31365-05	08-204262	Soil	18-Jul-05 10:00	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								VOC10
71-43-2	Benzene	BRL	209 µg/kg dry	50	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	BRL	209 µg/kg dry	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	944	209 µg/kg dry	50	"	"	"	"	"	
91-20-3	Naphthalene	259	209 µg/kg dry	50	"	"	"	"	"	
108-88-3	Toluene	BRL	209 µg/kg dry	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	280	209 µg/kg dry	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	209 µg/kg dry	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	524	418 µg/kg dry	50	"	"	"	"	"	
95-47-6	o-Xylene	BRL	209 µg/kg dry	50	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*101*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*108*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	33.7 mg/kg dry	1	8015BM/ME4.1 .25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	33.7 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	33.7 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	33.7 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	33.7 mg/kg dry	1	"	"	"	"	"	
	Unidentified	55.9	33.7 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	33.7 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	55.9	33.7 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*60.4*	*40-140 %*		"	"	"	"	"	
General Chemistry Parameters										
	% Solids	76.8	%	1	SM2540 G Mod.	28-Jul-05	28-Jul-05	5071771	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-5-4 1/2 SA31365-06	08-204262	Soil	18-Jul-05 10:10	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5035A Soil (low level)								VOC10
71-43-2	Benzene	15.8	6.0 µg/kg dry	1	SW846 8260B	27-Jul-05	27-Jul-05	5071621	tim	
100-41-4	Ethylbenzene	7.0	6.0 µg/kg dry	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	9.1	6.0 µg/kg dry	1	"	"	"	"	"	
91-20-3	Naphthalene	22.9	6.0 µg/kg dry	1	"	"	"	"	"	
108-88-3	Toluene	8.1	6.0 µg/kg dry	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	64.5	6.0 µg/kg dry	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	17.2	6.0 µg/kg dry	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	46.9	12.0 µg/kg dry	1	"	"	"	"	"	
95-47-6	o-Xylene	8.1	6.0 µg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*97.6*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.2*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*109*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*106*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	33.1 mg/kg dry	1	8015BM/ME4.1 .25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
	Unidentified	190	33.1 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	190	33.1 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*91.1*	*40-140 %*		"	"	"	"	"	
General Chemistry Parameters										
	% Solids	80.0	%	1	SM2540 G Mod.	28-Jul-05	28-Jul-05	5071771	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-5-8 SA31365-07	08-204262	Soil	18-Jul-05 10:20	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								VOC10
71-43-2	Benzene	BRL	202 µg/kg dry	100	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	BRL	202 µg/kg dry	100	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	202 µg/kg dry	100	"	"	"	"	"	
91-20-3	Naphthalene	1,080	202 µg/kg dry	100	"	"	"	"	"	
108-88-3	Toluene	BRL	202 µg/kg dry	100	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	2,010	202 µg/kg dry	100	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	790	202 µg/kg dry	100	"	"	"	"	"	
1330-20-7	m,p-Xylene	1,230	405 µg/kg dry	100	"	"	"	"	"	
95-47-6	o-Xylene	BRL	202 µg/kg dry	100	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*104*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96.2*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*112*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	369	36.1 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	36.1 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	36.1 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	36.1 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	36.1 mg/kg dry	1	"	"	"	"	"	
	Unidentified	BRL	36.1 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	36.1 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	369	36.1 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*86.3*	*40-140 %*		"	"	"	"	"	
General Chemistry Parameters										
	% Solids	72.2	%	1	SM2540 G Mod.	28-Jul-05	28-Jul-05	5071771	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-12-4 SA31365-08	08-204262	Soil	18-Jul-05 13:30	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								R-05, VOC10
71-43-2	Benzene	BRL	180 µg/kg dry	100	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	BRL	180 µg/kg dry	100	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	180 µg/kg dry	100	"	"	"	"	"	
91-20-3	Naphthalene	BRL	360 µg/kg dry	100	"	"	"	"	"	
108-88-3	Toluene	BRL	180 µg/kg dry	100	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	345	180 µg/kg dry	100	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	180 µg/kg dry	100	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	360 µg/kg dry	100	"	"	"	"	"	
95-47-6	o-Xylene	BRL	180 µg/kg dry	100	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*106*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96.8*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*112*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	3,620	34.9 mg/kg dry	1	8015BM/ME4.1 .25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
	Unidentified	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	3,620	34.9 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*73.9*	*40-140 %*		"	"	"	"	"	
General Chemistry Parameters										
	% Solids	72.9	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-12-11 SA31365-09	08-204262	Soil	18-Jul-05 14:00	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								VOC10
71-43-2	Benzene	BRL	140 µg/kg dry	50	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	140	140 µg/kg dry	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	140 µg/kg dry	50	"	"	"	"	"	
91-20-3	Naphthalene	1,160	140 µg/kg dry	50	"	"	"	"	"	
108-88-3	Toluene	BRL	140 µg/kg dry	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	1,740	140 µg/kg dry	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	695	140 µg/kg dry	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	722	280 µg/kg dry	50	"	"	"	"	"	
95-47-6	o-Xylene	BRL	140 µg/kg dry	50	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*104*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*112*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	36.8 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	36.8 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	36.8 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	36.8 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	36.8 mg/kg dry	1	"	"	"	"	"	
	Unidentified	104	36.8 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	36.8 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	104	36.8 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*61.4*	*40-140 %*		"	"	"	"	"	
General Chemistry Parameters										
	% Solids	71.1	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	
	Fractional Organic Carbon	0.0054	0.0001 N/A	1	SW846 9060	02-Aug-05	02-Aug-05	5080235	AW	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-5-8d SA31365-10	08-204262	Soil	18-Jul-05 10:30	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								R-05, VOC10
71-43-2	Benzene	BRL	280 µg/kg dry	100	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	BRL	280 µg/kg dry	100	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	280 µg/kg dry	100	"	"	"	"	"	
91-20-3	Naphthalene	1,590	280 µg/kg dry	100	"	"	"	"	"	
108-88-3	Toluene	BRL	280 µg/kg dry	100	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	3,560	280 µg/kg dry	100	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	1,420	280 µg/kg dry	100	"	"	"	"	"	
1330-20-7	m,p-Xylene	2,250	561 µg/kg dry	100	"	"	"	"	"	
95-47-6	o-Xylene	BRL	280 µg/kg dry	100	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*108*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97.6*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*116*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	864	34.9 mg/kg dry	1	8015BM/ME4.1 .25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
	Unidentified	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	34.9 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	864	34.9 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*124*	*40-140 %*		"	"	"	"	"	
General Chemistry Parameters										
	% Solids	74.9	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-13-4 SA31365-11	08-204262	Soil	18-Jul-05 15:00	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								
71-43-2	Benzene	BRL	157 µg/kg dry	50	SW846 8260B	29-Jul-05	29-Jul-05	5071804	tim	
100-41-4	Ethylbenzene	495	157 µg/kg dry	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	157 µg/kg dry	50	"	"	"	"	"	
91-20-3	Naphthalene	1,300	157 µg/kg dry	50	"	"	"	"	"	
108-88-3	Toluene	281	157 µg/kg dry	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	3,880	157 µg/kg dry	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	1,540	157 µg/kg dry	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	2,400	314 µg/kg dry	50	"	"	"	"	"	
95-47-6	o-Xylene	181	157 µg/kg dry	50	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*105*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*95.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97.0*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	1,400	33.1 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
	Unidentified	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	33.1 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	1,400	33.1 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*174*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	80.2	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-13-7 SA31365-12	08-204262	Soil	18-Jul-05 15:30	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								
71-43-2	Benzene	BRL	139 µg/kg dry	50	SW846 8260B	29-Jul-05	29-Jul-05	5071804	tim	
100-41-4	Ethylbenzene	BRL	139 µg/kg dry	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	185	139 µg/kg dry	50	"	"	"	"	"	
91-20-3	Naphthalene	BRL	139 µg/kg dry	50	"	"	"	"	"	
108-88-3	Toluene	BRL	139 µg/kg dry	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	325	139 µg/kg dry	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	149	139 µg/kg dry	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	279 µg/kg dry	50	"	"	"	"	"	
95-47-6	o-Xylene	BRL	139 µg/kg dry	50	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*106*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*95.6*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*105*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97.6*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	180	34.1 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	34.1 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	34.1 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	34.1 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	34.1 mg/kg dry	1	"	"	"	"	"	
	Unidentified	BRL	34.1 mg/kg dry	1	"	"	"	"	"	
	Other Oil	BRL	34.1 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	180	34.1 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*66.7*	*40-140 %*		"	"	"	"	"	
General Chemistry Parameters										
	% Solids	78.0	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-18-4 SA31365-13	08-204262	Soil	19-Jul-05 09:30	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								VOC10
71-43-2	Benzene	BRL	5610 µg/kg dry	2500	SW846 8260B	27-Jul-05	28-Jul-05	5071663	tim	
100-41-4	Ethylbenzene	79,100	5610 µg/kg dry	2500	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	5610 µg/kg dry	2500	"	"	"	"	"	
91-20-3	Naphthalene	118,000	5610 µg/kg dry	2500	"	"	"	"	"	
108-88-3	Toluene	123,000	5610 µg/kg dry	2500	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	684,000	5610 µg/kg dry	2500	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	217,000	5610 µg/kg dry	2500	"	"	"	"	"	
1330-20-7	m,p-Xylene	506,000	11200 µg/kg dry	2500	"	"	"	"	"	
95-47-6	o-Xylene	248,000	5610 µg/kg dry	2500	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*101*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.2*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*113*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	30.9 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	30.9 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	30.9 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	30.9 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	30.9 mg/kg dry	1	"	"	"	"	"	
	Unidentified	14,300	30.9 mg/kg dry	1	"	"	"	"	"	
	Other Oil	Calculated as	30.9 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	14,300	30.9 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*3580*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	84.9	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	
	Fractional Organic Carbon	0.0151	0.0001 N/A	1	SW846 9060	02-Aug-05	02-Aug-05	5080235	AW	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-18-6 SA31365-14	08-204262	Soil	19-Jul-05 10:00	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								R-05
71-43-2	Benzene	6,080	2300 µg/kg dry	1000	SW846 8260B	29-Jul-05	29-Jul-05	5071804	tim	
100-41-4	Ethylbenzene	13,600	2300 µg/kg dry	1000	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	3,780	2300 µg/kg dry	1000	"	"	"	"	"	
91-20-3	Naphthalene	8,040	2300 µg/kg dry	1000	"	"	"	"	"	
108-88-3	Toluene	24,400	2300 µg/kg dry	1000	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	47,200	2300 µg/kg dry	1000	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	15,700	2300 µg/kg dry	1000	"	"	"	"	"	
1330-20-7	m,p-Xylene	66,500	4600 µg/kg dry	1000	"	"	"	"	"	
95-47-6	o-Xylene	25,300	2300 µg/kg dry	1000	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*101*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.2*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*95.6*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	32.8 mg/kg dry	1	8015BM/ME4.1 .25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	32.8 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	32.8 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	32.8 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	32.8 mg/kg dry	1	"	"	"	"	"	
	Unidentified	725	32.8 mg/kg dry	1	"	"	"	"	"	
	Other Oil	Calculated as	32.8 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	725	32.8 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*206*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	79.6	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-17-2 1/2 SA31365-15	08-204262	Soil	19-Jul-05 08:00	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								R-05
71-43-2	Benzene	2,250	1170 µg/kg dry	500	SW846 8260B	29-Jul-05	29-Jul-05	5071804	tim	
100-41-4	Ethylbenzene	4,250	1170 µg/kg dry	500	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1170 µg/kg dry	500	"	"	"	"	"	
91-20-3	Naphthalene	11,900	1170 µg/kg dry	500	"	"	"	"	"	
108-88-3	Toluene	4,380	1170 µg/kg dry	500	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	38,200	1170 µg/kg dry	500	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	11,800	1170 µg/kg dry	500	"	"	"	"	"	
1330-20-7	m,p-Xylene	22,600	2350 µg/kg dry	500	"	"	"	"	"	
95-47-6	o-Xylene	7,180	1170 µg/kg dry	500	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*102*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*96.0*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	28.3 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	28.3 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	28.3 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	28.3 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	28.3 mg/kg dry	1	"	"	"	"	"	
	Unidentified	4,630	28.3 mg/kg dry	1	"	"	"	"	"	
	Other Oil	Calculated as	28.3 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	4,630	28.3 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*811*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	92.8	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	
	Fractional Organic Carbon	0.0122	0.0001 N/A	1	SW846 9060	02-Aug-05	02-Aug-05	5080235	AW	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-17-5 SA31365-16	08-204262	Soil	19-Jul-05 08:15	21-Jul-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
	VOC Extraction	Field extracted	N/A	1	VOC	25-Jul-05	25-Jul-05	5071509	BD	
Volatile Organic Compounds by SW846 8260B		Prepared by method SW846 5030 Soil (high level)								VOC10
71-43-2	Benzene	21,600	2490 µg/kg dry	1000	SW846 8260B	28-Jul-05	28-Jul-05	5071721	RLJ	
100-41-4	Ethylbenzene	127,000	2490 µg/kg dry	1000	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	2490 µg/kg dry	1000	"	"	"	"	"	
91-20-3	Naphthalene	87,500	2490 µg/kg dry	1000	"	"	"	"	"	
108-88-3	Toluene	129,000	2490 µg/kg dry	1000	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	478,000	2490 µg/kg dry	1000	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	157,000	2490 µg/kg dry	1000	"	"	"	"	"	
1330-20-7	m,p-Xylene	496,000	4980 µg/kg dry	1000	"	"	"	"	"	
95-47-6	o-Xylene	156,000	2490 µg/kg dry	1000	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*108*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*93.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98.4*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics		Prepared by method SW846 3545A								
68476-30-2	Fuel Oil #2	Calculated as	33.6 mg/kg dry	1	8015BM/ME4.1.25	28-Jul-05	01-Aug-05	5071700	KG	
68476-31-3	Fuel Oil #4	BRL	33.6 mg/kg dry	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	33.6 mg/kg dry	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	33.6 mg/kg dry	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	33.6 mg/kg dry	1	"	"	"	"	"	
	Unidentified	17,700	33.6 mg/kg dry	1	"	"	"	"	"	
	Other Oil	Calculated as	33.6 mg/kg dry	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	17,700	33.6 mg/kg dry	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*3020*	*40-140 %*		"	"	"	"	"	S-02
General Chemistry Parameters										
	% Solids	81.0	%	1	SM2540 G Mod.	29-Jul-05	29-Jul-05	5071795	BD	
	Fractional Organic Carbon	0.0082	0.0001 N/A	1	SW846 9060	02-Aug-05	02-Aug-05	5080235	AW	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071621 - SW846 5035A Soil (low level)										
Blank (5071621-BLK1)				Prepared & Analyzed: 27-Jul-05						
Acetone	BRL	100	µg/kg wet							
Acrylonitrile	BRL	5.0	µg/kg wet							
Benzene	BRL	5.0	µg/kg wet							
Bromobenzene	BRL	5.0	µg/kg wet							
Bromochloromethane	BRL	5.0	µg/kg wet							
Bromodichloromethane	BRL	5.0	µg/kg wet							
Bromoform	BRL	5.0	µg/kg wet							
Bromomethane	BRL	10.0	µg/kg wet							
2-Butanone (MEK)	BRL	50.0	µg/kg wet							
n-Butylbenzene	BRL	5.0	µg/kg wet							
sec-Butylbenzene	BRL	5.0	µg/kg wet							
tert-Butylbenzene	BRL	5.0	µg/kg wet							
Carbon disulfide	BRL	25.0	µg/kg wet							
Carbon tetrachloride	BRL	5.0	µg/kg wet							
Chlorobenzene	BRL	5.0	µg/kg wet							
Chloroethane	BRL	10.0	µg/kg wet							
Chloroform	BRL	5.0	µg/kg wet							
Chloromethane	BRL	10.0	µg/kg wet							
2-Chlorotoluene	BRL	5.0	µg/kg wet							
4-Chlorotoluene	BRL	5.0	µg/kg wet							
1,2-Dibromo-3-chloropropane	BRL	10.0	µg/kg wet							
Dibromochloromethane	BRL	5.0	µg/kg wet							
1,2-Dibromoethane (EDB)	BRL	5.0	µg/kg wet							
Dibromomethane	BRL	5.0	µg/kg wet							
1,2-Dichlorobenzene	BRL	5.0	µg/kg wet							
1,3-Dichlorobenzene	BRL	5.0	µg/kg wet							
1,4-Dichlorobenzene	BRL	5.0	µg/kg wet							
Dichlorodifluoromethane (Freon12)	BRL	10.0	µg/kg wet							
1,1-Dichloroethane	BRL	5.0	µg/kg wet							
1,2-Dichloroethane	BRL	5.0	µg/kg wet							
1,1-Dichloroethene	BRL	5.0	µg/kg wet							
cis-1,2-Dichloroethene	BRL	5.0	µg/kg wet							
trans-1,2-Dichloroethene	BRL	5.0	µg/kg wet							
1,2-Dichloropropane	BRL	5.0	µg/kg wet							
1,3-Dichloropropane	BRL	5.0	µg/kg wet							
2,2-Dichloropropane	BRL	5.0	µg/kg wet							
1,1-Dichloropropene	BRL	5.0	µg/kg wet							
cis-1,3-Dichloropropene	BRL	5.0	µg/kg wet							
trans-1,3-Dichloropropene	BRL	5.0	µg/kg wet							
Ethylbenzene	BRL	5.0	µg/kg wet							
Hexachlorobutadiene	BRL	5.0	µg/kg wet							
2-Hexanone (MBK)	BRL	50.0	µg/kg wet							
Isopropylbenzene	BRL	5.0	µg/kg wet							
4-Isopropyltoluene	BRL	5.0	µg/kg wet							
Methyl tert-butyl ether	BRL	5.0	µg/kg wet							
4-Methyl-2-pentanone (MIBK)	BRL	50.0	µg/kg wet							
Methylene chloride	BRL	50.0	µg/kg wet							
Naphthalene	BRL	5.0	µg/kg wet							
n-Propylbenzene	BRL	5.0	µg/kg wet							
Styrene	BRL	5.0	µg/kg wet							
1,1,1,2-Tetrachloroethane	BRL	5.0	µg/kg wet							
1,1,2,2-Tetrachloroethane	BRL	5.0	µg/kg wet							
Tetrachloroethene	BRL	5.0	µg/kg wet							
Toluene	BRL	5.0	µg/kg wet							

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071621 - SW846 5035A Soil (low level)										
Blank (5071621-BLK1)				Prepared & Analyzed: 27-Jul-05						
1,2,3-Trichlorobenzene	BRL	5.0	µg/kg wet							
1,2,4-Trichlorobenzene	BRL	5.0	µg/kg wet							
1,1,1-Trichloroethane	BRL	5.0	µg/kg wet							
1,1,2-Trichloroethane	BRL	5.0	µg/kg wet							
Trichloroethene	BRL	5.0	µg/kg wet							
Trichlorofluoromethane (Freon 11)	BRL	5.0	µg/kg wet							
1,2,3-Trichloropropane	BRL	5.0	µg/kg wet							
1,2,4-Trimethylbenzene	BRL	5.0	µg/kg wet							
1,3,5-Trimethylbenzene	BRL	5.0	µg/kg wet							
Vinyl chloride	BRL	5.0	µg/kg wet							
m,p-Xylene	BRL	10.0	µg/kg wet							
o-Xylene	BRL	5.0	µg/kg wet							
Surrogate: 4-Bromofluorobenzene	*45.7*		µg/kg wet	*50.0*		*91.4*	*70-130*			
Surrogate: Toluene-d8	*49.1*		µg/kg wet	*50.0*		*98.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*51.6*		µg/kg wet	*50.0*		*103*	*70-130*			
Surrogate: Dibromofluoromethane	*52.8*		µg/kg wet	*50.0*		*106*	*70-130*			
LCS (5071621-BS1)				Prepared & Analyzed: 27-Jul-05						
Acetone	16.6		µg/kg wet	20.0		83.0	19.4-217			
Acrylonitrile	13.3		µg/kg wet	20.0		66.5	70-130			QC-1
Benzene	18.3		µg/kg wet	20.0		91.5	70-130			
Bromobenzene	21.6		µg/kg wet	20.0		108	70-130			
Bromochloromethane	19.2		µg/kg wet	20.0		96.0	70-130			
Bromodichloromethane	21.2		µg/kg wet	20.0		106	70-130			
Bromoform	18.4		µg/kg wet	20.0		92.0	70-130			
Bromomethane	17.4		µg/kg wet	20.0		87.0	48.6-171			
2-Butanone (MEK)	8.8		µg/kg wet	20.0		44.0	16.5-153			
n-Butylbenzene	20.2		µg/kg wet	20.0		101	70-130			
sec-Butylbenzene	22.2		µg/kg wet	20.0		111	70-130			
tert-Butylbenzene	22.4		µg/kg wet	20.0		112	70-130			
Carbon disulfide	18.8		µg/kg wet	20.0		94.0	70-130			
Carbon tetrachloride	24.8		µg/kg wet	20.0		124	70-130			
Chlorobenzene	21.2		µg/kg wet	20.0		106	70-130			
Chloroethane	21.9		µg/kg wet	20.0		110	68.8-140			
Chloroform	18.1		µg/kg wet	20.0		90.5	70-130			
Chloromethane	17.6		µg/kg wet	20.0		88.0	70-130			
2-Chlorotoluene	20.5		µg/kg wet	20.0		102	70-130			
4-Chlorotoluene	20.6		µg/kg wet	20.0		103	70-130			
1,2-Dibromo-3-chloropropane	17.6		µg/kg wet	20.0		88.0	70-130			
Dibromochloromethane	21.3		µg/kg wet	20.0		106	53.9-173			
1,2-Dibromoethane (EDB)	17.6		µg/kg wet	20.0		88.0	70-130			
Dibromomethane	17.6		µg/kg wet	20.0		88.0	70-130			
1,2-Dichlorobenzene	22.0		µg/kg wet	20.0		110	70-130			
1,3-Dichlorobenzene	22.0		µg/kg wet	20.0		110	70-130			
1,4-Dichlorobenzene	22.2		µg/kg wet	20.0		111	70-130			
Dichlorodifluoromethane (Freon12)	22.7		µg/kg wet	20.0		114	59.6-150			
1,1-Dichloroethane	18.2		µg/kg wet	20.0		91.0	70-130			
1,2-Dichloroethane	17.5		µg/kg wet	20.0		87.5	70-130			
1,1-Dichloroethene	19.9		µg/kg wet	20.0		99.5	70-130			
cis-1,2-Dichloroethene	19.8		µg/kg wet	20.0		99.0	70-130			
trans-1,2-Dichloroethene	19.3		µg/kg wet	20.0		96.5	70-130			
1,2-Dichloropropane	17.3		µg/kg wet	20.0		86.5	70-130			
1,3-Dichloropropane	16.2		µg/kg wet	20.0		81.0	70-130			
2,2-Dichloropropane	15.4		µg/kg wet	20.0		77.0	70-130			
1,1-Dichloropropene	19.5		µg/kg wet	20.0		97.5	70-130			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071621 - SW846 5035A Soil (low level)										
LCS (5071621-BS1)				Prepared & Analyzed: 27-Jul-05						
cis-1,3-Dichloropropene	19.4		µg/kg wet	20.0		97.0	70-130			
trans-1,3-Dichloropropene	18.4		µg/kg wet	20.0		92.0	70-130			
Ethylbenzene	21.0		µg/kg wet	20.0		105	70-130			
Hexachlorobutadiene	24.4		µg/kg wet	20.0		122	67.9-157			
2-Hexanone (MBK)	13.2		µg/kg wet	20.0		66.0	70-130			QC-2
Isopropylbenzene	21.0		µg/kg wet	20.0		105	70-130			
4-Isopropyltoluene	23.5		µg/kg wet	20.0		118	70-130			
Methyl tert-butyl ether	17.2		µg/kg wet	20.0		86.0	70-130			
4-Methyl-2-pentanone (MIBK)	13.6		µg/kg wet	20.0		68.0	43.9-154			
Methylene chloride	19.0		µg/kg wet	20.0		95.0	70-130			
Naphthalene	18.9		µg/kg wet	20.0		94.5	70-130			
n-Propylbenzene	21.4		µg/kg wet	20.0		107	70-130			
Styrene	20.8		µg/kg wet	20.0		104	70-130			
1,1,1,2-Tetrachloroethane	23.4		µg/kg wet	20.0		117	70-130			
1,1,2,2-Tetrachloroethane	16.3		µg/kg wet	20.0		81.5	70-130			
Tetrachloroethene	22.2		µg/kg wet	20.0		111	70-130			
Toluene	19.3		µg/kg wet	20.0		96.5	70-130			
1,2,3-Trichlorobenzene	22.7		µg/kg wet	20.0		114	70-130			
1,2,4-Trichlorobenzene	22.7		µg/kg wet	20.0		114	70-130			
1,1,1-Trichloroethane	21.1		µg/kg wet	20.0		106	70-130			
1,1,2-Trichloroethane	17.6		µg/kg wet	20.0		88.0	70-130			
Trichloroethene	20.0		µg/kg wet	20.0		100	70-130			
Trichlorofluoromethane (Freon 11)	20.9		µg/kg wet	20.0		104	70-138			
1,2,3-Trichloropropane	16.0		µg/kg wet	20.0		80.0	70-130			
1,2,4-Trimethylbenzene	21.2		µg/kg wet	20.0		106	70-130			
1,3,5-Trimethylbenzene	21.1		µg/kg wet	20.0		106	70-130			
Vinyl chloride	23.2		µg/kg wet	20.0		116	70-130			
m,p-Xylene	42.9		µg/kg wet	40.0		107	70-130			
o-Xylene	21.5		µg/kg wet	20.0		108	70-130			
Surrogate: 4-Bromofluorobenzene	*46.8*		µg/kg wet	*50.0*		*93.6*	*70-130*			
Surrogate: Toluene-d8	*49.8*		µg/kg wet	*50.0*		*99.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*45.3*		µg/kg wet	*50.0*		*90.6*	*70-130*			
Surrogate: Dibromofluoromethane	*51.5*		µg/kg wet	*50.0*		*103*	*70-130*			
LCS Dup (5071621-BSD1)				Prepared & Analyzed: 27-Jul-05						
Acetone	17.4		µg/kg wet	20.0		87.0	19.4-217	4.71	50	
Acrylonitrile	14.3		µg/kg wet	20.0		71.5	70-130	7.25	25	
Benzene	19.0		µg/kg wet	20.0		95.0	70-130	3.75	25	
Bromobenzene	22.6		µg/kg wet	20.0		113	70-130	4.52	25	
Bromochloromethane	20.3		µg/kg wet	20.0		102	70-130	6.06	25	
Bromodichloromethane	21.9		µg/kg wet	20.0		110	70-130	3.70	25	
Bromoform	19.4		µg/kg wet	20.0		97.0	70-130	5.29	25	
Bromomethane	18.2		µg/kg wet	20.0		91.0	48.6-171	4.49	50	
2-Butanone (MEK)	10.2		µg/kg wet	20.0		51.0	16.5-153	14.7	50	
n-Butylbenzene	20.8		µg/kg wet	20.0		104	70-130	2.93	25	
sec-Butylbenzene	23.2		µg/kg wet	20.0		116	70-130	4.41	25	
tert-Butylbenzene	23.2		µg/kg wet	20.0		116	70-130	3.51	25	
Carbon disulfide	19.7		µg/kg wet	20.0		98.5	70-130	4.68	25	
Carbon tetrachloride	25.9		µg/kg wet	20.0		130	70-130	4.72	25	
Chlorobenzene	22.2		µg/kg wet	20.0		111	70-130	4.61	25	
Chloroethane	23.0		µg/kg wet	20.0		115	68.8-140	4.44	50	
Chloroform	19.2		µg/kg wet	20.0		96.0	70-130	5.90	25	
Chloromethane	18.7		µg/kg wet	20.0		93.5	70-130	6.06	25	
2-Chlorotoluene	22.2		µg/kg wet	20.0		111	70-130	8.45	25	
4-Chlorotoluene	21.4		µg/kg wet	20.0		107	70-130	3.81	25	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071621 - SW846 5035A Soil (low level)										
LCS Dup (5071621-BSD1)				Prepared & Analyzed: 27-Jul-05						
1,2-Dibromo-3-chloropropane	18.9		µg/kg wet	20.0		94.5	70-130	7.12	25	
Dibromochloromethane	22.4		µg/kg wet	20.0		112	53.9-173	5.50	50	
1,2-Dibromoethane (EDB)	18.4		µg/kg wet	20.0		92.0	70-130	4.44	25	
Dibromomethane	18.3		µg/kg wet	20.0		91.5	70-130	3.90	25	
1,2-Dichlorobenzene	22.6		µg/kg wet	20.0		113	70-130	2.69	25	
1,3-Dichlorobenzene	22.9		µg/kg wet	20.0		114	70-130	3.57	25	
1,4-Dichlorobenzene	22.9		µg/kg wet	20.0		114	70-130	2.67	25	
Dichlorodifluoromethane (Freon12)	24.3		µg/kg wet	20.0		122	59.6-150	6.78	50	
1,1-Dichloroethane	19.1		µg/kg wet	20.0		95.5	70-130	4.83	25	
1,2-Dichloroethane	18.3		µg/kg wet	20.0		91.5	70-130	4.47	25	
1,1-Dichloroethene	20.9		µg/kg wet	20.0		104	70-130	4.42	25	
cis-1,2-Dichloroethene	20.5		µg/kg wet	20.0		102	70-130	2.99	25	
trans-1,2-Dichloroethene	20.0		µg/kg wet	20.0		100	70-130	3.56	25	
1,2-Dichloropropane	18.3		µg/kg wet	20.0		91.5	70-130	5.62	25	
1,3-Dichloropropane	16.9		µg/kg wet	20.0		84.5	70-130	4.23	25	
2,2-Dichloropropane	16.2		µg/kg wet	20.0		81.0	70-130	5.06	25	
1,1-Dichloropropene	20.3		µg/kg wet	20.0		102	70-130	4.51	25	
cis-1,3-Dichloropropene	20.2		µg/kg wet	20.0		101	70-130	4.04	25	
trans-1,3-Dichloropropene	19.3		µg/kg wet	20.0		96.5	70-130	4.77	25	
Ethylbenzene	21.9		µg/kg wet	20.0		110	70-130	4.65	25	
Hexachlorobutadiene	25.4		µg/kg wet	20.0		127	67.9-157	4.02	50	
2-Hexanone (MBK)	13.7		µg/kg wet	20.0		68.5	70-130	3.72	25	QC-2
Isopropylbenzene	22.0		µg/kg wet	20.0		110	70-130	4.65	25	
4-Isopropyltoluene	23.9		µg/kg wet	20.0		120	70-130	1.68	25	
Methyl tert-butyl ether	18.3		µg/kg wet	20.0		91.5	70-130	6.20	25	
4-Methyl-2-pentanone (MIBK)	14.0		µg/kg wet	20.0		70.0	43.9-154	2.90	50	
Methylene chloride	19.7		µg/kg wet	20.0		98.5	70-130	3.62	25	
Naphthalene	19.0		µg/kg wet	20.0		95.0	70-130	0.528	25	
n-Propylbenzene	22.1		µg/kg wet	20.0		110	70-130	2.76	25	
Styrene	22.0		µg/kg wet	20.0		110	70-130	5.61	25	
1,1,1,2-Tetrachloroethane	24.2		µg/kg wet	20.0		121	70-130	3.36	25	
1,1,2,2-Tetrachloroethane	17.3		µg/kg wet	20.0		86.5	70-130	5.95	25	
Tetrachloroethene	23.3		µg/kg wet	20.0		116	70-130	4.41	25	
Toluene	20.2		µg/kg wet	20.0		101	70-130	4.56	25	
1,2,3-Trichlorobenzene	23.1		µg/kg wet	20.0		116	70-130	1.74	25	
1,2,4-Trichlorobenzene	23.0		µg/kg wet	20.0		115	70-130	0.873	25	
1,1,1-Trichloroethane	22.4		µg/kg wet	20.0		112	70-130	5.50	25	
1,1,2-Trichloroethane	18.3		µg/kg wet	20.0		91.5	70-130	3.90	25	
Trichloroethene	21.0		µg/kg wet	20.0		105	70-130	4.88	25	
Trichlorofluoromethane (Freon 11)	22.2		µg/kg wet	20.0		111	70-138	6.51	50	
1,2,3-Trichloropropane	17.0		µg/kg wet	20.0		85.0	70-130	6.06	25	
1,2,4-Trimethylbenzene	22.0		µg/kg wet	20.0		110	70-130	3.70	25	
1,3,5-Trimethylbenzene	22.3		µg/kg wet	20.0		112	70-130	5.50	25	
Vinyl chloride	23.9		µg/kg wet	20.0		120	70-130	3.39	25	
m,p-Xylene	45.4		µg/kg wet	40.0		114	70-130	6.33	25	
o-Xylene	22.8		µg/kg wet	20.0		114	70-130	5.41	25	
Surrogate: 4-Bromofluorobenzene	*47.3*		µg/kg wet	*50.0*		*94.6*	*70-130*			
Surrogate: Toluene-d8	*50.4*		µg/kg wet	*50.0*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*45.8*		µg/kg wet	*50.0*		*91.6*	*70-130*			
Surrogate: Dibromofluoromethane	*51.0*		µg/kg wet	*50.0*		*102*	*70-130*			
Batch 5071663 - SW846 5030 Soil (high level)										
Blank (5071663-BLK1)				Prepared & Analyzed: 27-Jul-05						
Acetone	BRL	20.0	µg/kg wet							

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071663 - SW846 5030 Soil (high level)										
Blank (5071663-BLK1)				Prepared & Analyzed: 27-Jul-05						
Acrylonitrile	BRL	1.0	µg/kg wet							
Benzene	BRL	1.0	µg/kg wet							
Bromobenzene	BRL	1.0	µg/kg wet							
Bromochloromethane	BRL	1.0	µg/kg wet							
Bromodichloromethane	BRL	1.0	µg/kg wet							
Bromoform	BRL	1.0	µg/kg wet							
Bromomethane	BRL	2.0	µg/kg wet							
2-Butanone (MEK)	BRL	10.0	µg/kg wet							
n-Butylbenzene	BRL	1.0	µg/kg wet							
sec-Butylbenzene	BRL	1.0	µg/kg wet							
tert-Butylbenzene	BRL	1.0	µg/kg wet							
Carbon disulfide	BRL	5.0	µg/kg wet							
Carbon tetrachloride	BRL	1.0	µg/kg wet							
Chlorobenzene	BRL	1.0	µg/kg wet							
Chloroethane	BRL	2.0	µg/kg wet							
Chloroform	BRL	1.0	µg/kg wet							
Chloromethane	BRL	2.0	µg/kg wet							
2-Chlorotoluene	BRL	1.0	µg/kg wet							
4-Chlorotoluene	BRL	1.0	µg/kg wet							
1,2-Dibromo-3-chloropropane	BRL	2.0	µg/kg wet							
Dibromochloromethane	BRL	1.0	µg/kg wet							
1,2-Dibromoethane (EDB)	BRL	1.0	µg/kg wet							
Dibromomethane	BRL	1.0	µg/kg wet							
1,2-Dichlorobenzene	BRL	1.0	µg/kg wet							
1,3-Dichlorobenzene	BRL	1.0	µg/kg wet							
1,4-Dichlorobenzene	BRL	1.0	µg/kg wet							
Dichlorodifluoromethane (Freon12)	BRL	2.0	µg/kg wet							
1,1-Dichloroethane	BRL	1.0	µg/kg wet							
1,2-Dichloroethane	BRL	1.0	µg/kg wet							
1,1-Dichloroethene	BRL	1.0	µg/kg wet							
cis-1,2-Dichloroethene	BRL	1.0	µg/kg wet							
trans-1,2-Dichloroethene	BRL	1.0	µg/kg wet							
1,2-Dichloropropane	BRL	1.0	µg/kg wet							
1,3-Dichloropropane	BRL	1.0	µg/kg wet							
2,2-Dichloropropane	BRL	1.0	µg/kg wet							
1,1-Dichloropropene	BRL	1.0	µg/kg wet							
cis-1,3-Dichloropropene	BRL	1.0	µg/kg wet							
trans-1,3-Dichloropropene	BRL	1.0	µg/kg wet							
Ethylbenzene	BRL	1.0	µg/kg wet							
Hexachlorobutadiene	BRL	1.0	µg/kg wet							
2-Hexanone (MBK)	BRL	10.0	µg/kg wet							
Isopropylbenzene	BRL	1.0	µg/kg wet							
4-Isopropyltoluene	BRL	1.0	µg/kg wet							
Methyl tert-butyl ether	BRL	1.0	µg/kg wet							
4-Methyl-2-pentanone (MIBK)	BRL	10.0	µg/kg wet							
Methylene chloride	BRL	10.0	µg/kg wet							
Naphthalene	BRL	1.0	µg/kg wet							
n-Propylbenzene	BRL	1.0	µg/kg wet							
Styrene	BRL	1.0	µg/kg wet							
1,1,1,2-Tetrachloroethane	BRL	1.0	µg/kg wet							
1,1,2,2-Tetrachloroethane	BRL	1.0	µg/kg wet							
Tetrachloroethene	BRL	1.0	µg/kg wet							
Toluene	BRL	1.0	µg/kg wet							
1,2,3-Trichlorobenzene	BRL	1.0	µg/kg wet							

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071663 - SW846 5030 Soil (high level)										
Blank (5071663-BLK1)				Prepared & Analyzed: 27-Jul-05						
1,2,4-Trichlorobenzene	BRL	1.0	µg/kg wet							
1,1,1-Trichloroethane	BRL	1.0	µg/kg wet							
1,1,2-Trichloroethane	BRL	1.0	µg/kg wet							
Trichloroethene	BRL	1.0	µg/kg wet							
Trichlorofluoromethane (Freon 11)	BRL	1.0	µg/kg wet							
1,2,3-Trichloropropane	BRL	1.0	µg/kg wet							
1,2,4-Trimethylbenzene	BRL	1.0	µg/kg wet							
1,3,5-Trimethylbenzene	BRL	1.0	µg/kg wet							
Vinyl chloride	BRL	1.0	µg/kg wet							
m,p-Xylene	BRL	2.0	µg/kg wet							
o-Xylene	BRL	1.0	µg/kg wet							
Surrogate: 4-Bromofluorobenzene	*49.1*		µg/kg wet	*50.0*		*98.2*	*70-130*			
Surrogate: Toluene-d8	*50.2*		µg/kg wet	*50.0*		*100*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*53.5*		µg/kg wet	*50.0*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*48.9*		µg/kg wet	*50.0*		*97.8*	*70-130*			
LCS (5071663-BS1)				Prepared & Analyzed: 27-Jul-05						
Acetone	20.9		µg/kg wet	20.0		104	19.4-217			
Acrylonitrile	19.0		µg/kg wet	20.0		95.0	70-130			
Benzene	20.8		µg/kg wet	20.0		104	70-130			
Bromobenzene	20.7		µg/kg wet	20.0		104	70-130			
Bromochloromethane	21.5		µg/kg wet	20.0		108	70-130			
Bromodichloromethane	21.5		µg/kg wet	20.0		108	70-130			
Bromoform	18.9		µg/kg wet	20.0		94.5	70-130			
Bromomethane	24.3		µg/kg wet	20.0		122	48.6-171			
2-Butanone (MEK)	20.8		µg/kg wet	20.0		104	16.5-153			
n-Butylbenzene	21.6		µg/kg wet	20.0		108	70-130			
sec-Butylbenzene	21.1		µg/kg wet	20.0		106	70-130			
tert-Butylbenzene	21.2		µg/kg wet	20.0		106	70-130			
Carbon disulfide	19.9		µg/kg wet	20.0		99.5	70-130			
Carbon tetrachloride	20.9		µg/kg wet	20.0		104	70-130			
Chlorobenzene	20.3		µg/kg wet	20.0		102	70-130			
Chloroethane	22.5		µg/kg wet	20.0		112	68.8-140			
Chloroform	21.1		µg/kg wet	20.0		106	70-130			
Chloromethane	25.6		µg/kg wet	20.0		128	70-130			
2-Chlorotoluene	20.9		µg/kg wet	20.0		104	70-130			
4-Chlorotoluene	20.7		µg/kg wet	20.0		104	70-130			
1,2-Dibromo-3-chloropropane	19.4		µg/kg wet	20.0		97.0	70-130			
Dibromochloromethane	22.2		µg/kg wet	20.0		111	53.9-173			
1,2-Dibromoethane (EDB)	20.9		µg/kg wet	20.0		104	70-130			
Dibromomethane	21.7		µg/kg wet	20.0		108	70-130			
1,2-Dichlorobenzene	21.9		µg/kg wet	20.0		110	70-130			
1,3-Dichlorobenzene	21.6		µg/kg wet	20.0		108	70-130			
1,4-Dichlorobenzene	21.9		µg/kg wet	20.0		110	70-130			
Dichlorodifluoromethane (Freon12)	29.9		µg/kg wet	20.0		150	59.6-150			
1,1-Dichloroethane	21.1		µg/kg wet	20.0		106	70-130			
1,2-Dichloroethane	21.6		µg/kg wet	20.0		108	70-130			
1,1-Dichloroethene	19.7		µg/kg wet	20.0		98.5	70-130			
cis-1,2-Dichloroethene	21.1		µg/kg wet	20.0		106	70-130			
trans-1,2-Dichloroethene	20.4		µg/kg wet	20.0		102	70-130			
1,2-Dichloropropane	21.8		µg/kg wet	20.0		109	70-130			
1,3-Dichloropropane	21.9		µg/kg wet	20.0		110	70-130			
2,2-Dichloropropane	24.5		µg/kg wet	20.0		122	70-130			
1,1-Dichloropropene	21.9		µg/kg wet	20.0		110	70-130			
cis-1,3-Dichloropropene	22.1		µg/kg wet	20.0		110	70-130			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071663 - SW846 5030 Soil (high level)										
LCS (5071663-BS1)				Prepared & Analyzed: 27-Jul-05						
trans-1,3-Dichloropropene	22.6		µg/kg wet	20.0		113	70-130			
Ethylbenzene	20.3		µg/kg wet	20.0		102	70-130			
Hexachlorobutadiene	24.3		µg/kg wet	20.0		122	67.9-157			
2-Hexanone (MBK)	26.4		µg/kg wet	20.0		132	70-130			QC-1
Isopropylbenzene	19.6		µg/kg wet	20.0		98.0	70-130			
4-Isopropyltoluene	22.6		µg/kg wet	20.0		113	70-130			
Methyl tert-butyl ether	21.1		µg/kg wet	20.0		106	70-130			
4-Methyl-2-pentanone (MIBK)	17.5		µg/kg wet	20.0		87.5	43.9-154			
Methylene chloride	22.6		µg/kg wet	20.0		113	70-130			
Naphthalene	21.3		µg/kg wet	20.0		106	70-130			
n-Propylbenzene	20.2		µg/kg wet	20.0		101	70-130			
Styrene	20.0		µg/kg wet	20.0		100	70-130			
1,1,1,2-Tetrachloroethane	20.9		µg/kg wet	20.0		104	70-130			
1,1,2,2-Tetrachloroethane	19.7		µg/kg wet	20.0		98.5	70-130			
Tetrachloroethene	22.0		µg/kg wet	20.0		110	70-130			
Toluene	21.2		µg/kg wet	20.0		106	70-130			
1,2,3-Trichlorobenzene	21.9		µg/kg wet	20.0		110	70-130			
1,2,4-Trichlorobenzene	21.9		µg/kg wet	20.0		110	70-130			
1,1,1-Trichloroethane	21.3		µg/kg wet	20.0		106	70-130			
1,1,2-Trichloroethane	22.1		µg/kg wet	20.0		110	70-130			
Trichloroethene	20.3		µg/kg wet	20.0		102	70-130			
Trichlorofluoromethane (Freon 11)	23.0		µg/kg wet	20.0		115	70-138			
1,2,3-Trichloropropane	19.1		µg/kg wet	20.0		95.5	70-130			
1,2,4-Trimethylbenzene	20.4		µg/kg wet	20.0		102	70-130			
1,3,5-Trimethylbenzene	20.4		µg/kg wet	20.0		102	70-130			
Vinyl chloride	24.1		µg/kg wet	20.0		120	70-130			
m,p-Xylene	42.0		µg/kg wet	40.0		105	70-130			
o-Xylene	20.6		µg/kg wet	20.0		103	70-130			
Surrogate: 4-Bromofluorobenzene	*49.3*		µg/kg wet	*50.0*		*98.6*	*70-130*			
Surrogate: Toluene-d8	*49.9*		µg/kg wet	*50.0*		*99.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*53.7*		µg/kg wet	*50.0*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*50.6*		µg/kg wet	*50.0*		*101*	*70-130*			
LCS Dup (5071663-BSD1)				Prepared: 27-Jul-05 Analyzed: 28-Jul-05						
Acetone	22.7		µg/kg wet	20.0		114	19.4-217	9.17	50	
Acrylonitrile	19.4		µg/kg wet	20.0		97.0	70-130	2.08	25	
Benzene	20.3		µg/kg wet	20.0		102	70-130	1.94	25	
Bromobenzene	20.7		µg/kg wet	20.0		104	70-130	0.00	25	
Bromochloromethane	20.8		µg/kg wet	20.0		104	70-130	3.77	25	
Bromodichloromethane	21.7		µg/kg wet	20.0		108	70-130	0.00	25	
Bromoform	18.8		µg/kg wet	20.0		94.0	70-130	0.531	25	
Bromomethane	24.1		µg/kg wet	20.0		120	48.6-171	1.65	50	
2-Butanone (MEK)	18.7		µg/kg wet	20.0		93.5	16.5-153	10.6	50	
n-Butylbenzene	22.6		µg/kg wet	20.0		113	70-130	4.52	25	
sec-Butylbenzene	21.0		µg/kg wet	20.0		105	70-130	0.948	25	
tert-Butylbenzene	21.2		µg/kg wet	20.0		106	70-130	0.00	25	
Carbon disulfide	19.4		µg/kg wet	20.0		97.0	70-130	2.54	25	
Carbon tetrachloride	20.1		µg/kg wet	20.0		100	70-130	3.92	25	
Chlorobenzene	20.3		µg/kg wet	20.0		102	70-130	0.00	25	
Chloroethane	21.9		µg/kg wet	20.0		110	68.8-140	1.80	50	
Chloroform	20.8		µg/kg wet	20.0		104	70-130	1.90	25	
Chloromethane	24.3		µg/kg wet	20.0		122	70-130	4.80	25	
2-Chlorotoluene	20.6		µg/kg wet	20.0		103	70-130	0.966	25	
4-Chlorotoluene	20.5		µg/kg wet	20.0		102	70-130	1.94	25	
1,2-Dibromo-3-chloropropane	19.5		µg/kg wet	20.0		97.5	70-130	0.514	25	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071663 - SW846 5030 Soil (high level)										
LCS Dup (5071663-BSD1)				Prepared: 27-Jul-05 Analyzed: 28-Jul-05						
Dibromochloromethane	20.8		µg/kg wet	20.0		104	53.9-173	6.51	50	
1,2-Dibromoethane (EDB)	20.5		µg/kg wet	20.0		102	70-130	1.94	25	
Dibromomethane	20.5		µg/kg wet	20.0		102	70-130	5.71	25	
1,2-Dichlorobenzene	22.2		µg/kg wet	20.0		111	70-130	0.905	25	
1,3-Dichlorobenzene	21.3		µg/kg wet	20.0		106	70-130	1.87	25	
1,4-Dichlorobenzene	22.5		µg/kg wet	20.0		112	70-130	1.80	25	
Dichlorodifluoromethane (Freon12)	30.1		µg/kg wet	20.0		150	59.6-150	0.00	50	
1,1-Dichloroethane	20.7		µg/kg wet	20.0		104	70-130	1.90	25	
1,2-Dichloroethane	20.8		µg/kg wet	20.0		104	70-130	3.77	25	
1,1-Dichloroethene	20.4		µg/kg wet	20.0		102	70-130	3.49	25	
cis-1,2-Dichloroethene	20.4		µg/kg wet	20.0		102	70-130	3.85	25	
trans-1,2-Dichloroethene	19.9		µg/kg wet	20.0		99.5	70-130	2.48	25	
1,2-Dichloropropane	21.2		µg/kg wet	20.0		106	70-130	2.79	25	
1,3-Dichloropropane	21.0		µg/kg wet	20.0		105	70-130	4.65	25	
2,2-Dichloropropane	23.8		µg/kg wet	20.0		119	70-130	2.49	25	
1,1-Dichloropropene	21.9		µg/kg wet	20.0		110	70-130	0.00	25	
cis-1,3-Dichloropropene	21.4		µg/kg wet	20.0		107	70-130	2.76	25	
trans-1,3-Dichloropropene	22.0		µg/kg wet	20.0		110	70-130	2.69	25	
Ethylbenzene	20.2		µg/kg wet	20.0		101	70-130	0.985	25	
Hexachlorobutadiene	25.4		µg/kg wet	20.0		127	67.9-157	4.02	50	
2-Hexanone (MBK)	25.6		µg/kg wet	20.0		128	70-130	3.08	25	
Isopropylbenzene	19.8		µg/kg wet	20.0		99.0	70-130	1.02	25	
4-Isopropyltoluene	23.6		µg/kg wet	20.0		118	70-130	4.33	25	
Methyl tert-butyl ether	20.4		µg/kg wet	20.0		102	70-130	3.85	25	
4-Methyl-2-pentanone (MIBK)	16.9		µg/kg wet	20.0		84.5	43.9-154	3.49	50	
Methylene chloride	22.2		µg/kg wet	20.0		111	70-130	1.79	25	
Naphthalene	20.6		µg/kg wet	20.0		103	70-130	2.87	25	
n-Propylbenzene	20.4		µg/kg wet	20.0		102	70-130	0.985	25	
Styrene	19.8		µg/kg wet	20.0		99.0	70-130	1.01	25	
1,1,1,2-Tetrachloroethane	21.1		µg/kg wet	20.0		106	70-130	1.90	25	
1,1,2,2-Tetrachloroethane	19.2		µg/kg wet	20.0		96.0	70-130	2.57	25	
Tetrachloroethene	22.0		µg/kg wet	20.0		110	70-130	0.00	25	
Toluene	20.5		µg/kg wet	20.0		102	70-130	3.85	25	
1,2,3-Trichlorobenzene	21.8		µg/kg wet	20.0		109	70-130	0.913	25	
1,2,4-Trichlorobenzene	22.1		µg/kg wet	20.0		110	70-130	0.00	25	
1,1,1-Trichloroethane	21.0		µg/kg wet	20.0		105	70-130	0.948	25	
1,1,2-Trichloroethane	21.3		µg/kg wet	20.0		106	70-130	3.70	25	
Trichloroethene	20.8		µg/kg wet	20.0		104	70-130	1.94	25	
Trichlorofluoromethane (Freon 11)	22.2		µg/kg wet	20.0		111	70-138	3.54	50	
1,2,3-Trichloropropane	19.0		µg/kg wet	20.0		95.0	70-130	0.525	25	
1,2,4-Trimethylbenzene	20.4		µg/kg wet	20.0		102	70-130	0.00	25	
1,3,5-Trimethylbenzene	20.6		µg/kg wet	20.0		103	70-130	0.976	25	
Vinyl chloride	23.3		µg/kg wet	20.0		116	70-130	3.39	25	
m,p-Xylene	42.3		µg/kg wet	40.0		106	70-130	0.948	25	
o-Xylene	20.2		µg/kg wet	20.0		101	70-130	1.96	25	
Surrogate: 4-Bromofluorobenzene	*48.8*		µg/kg wet	*50.0*		*97.6*	*70-130*			
Surrogate: Toluene-d8	*48.8*		µg/kg wet	*50.0*		*97.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*52.0*		µg/kg wet	*50.0*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*49.1*		µg/kg wet	*50.0*		*98.2*	*70-130*			
Matrix Spike (5071663-MS1)	**Source: SA31365-05**			Prepared: 27-Jul-05 Analyzed: 28-Jul-05						
Benzene	21.8		µg/kg dry	20.0	BRL	109	70-130			
Chlorobenzene	21.2		µg/kg dry	20.0	BRL	106	70-130			
1,1-Dichloroethene	21.0		µg/kg dry	20.0	BRL	105	70-130			
Toluene	21.7		µg/kg dry	20.0	BRL	108	70-130			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071663 - SW846 5030 Soil (high level)										
Matrix Spike (5071663-MS1)	**Source: SA31365-05**			Prepared: 27-Jul-05 Analyzed: 28-Jul-05						
Trichloroethene	21.4		µg/kg dry	20.0	BRL	107	70-130			
Surrogate: 4-Bromofluorobenzene	*50.2*		µg/kg dry	*50.0*		*100*	*70-130*			
Surrogate: Toluene-d8	*48.8*		µg/kg dry	*50.0*		*97.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*55.9*		µg/kg dry	*50.0*		*112*	*70-130*			
Surrogate: Dibromofluoromethane	*52.6*		µg/kg dry	*50.0*		*105*	*70-130*			
Matrix Spike Dup (5071663-MSD1)	**Source: SA31365-05**			Prepared: 27-Jul-05 Analyzed: 28-Jul-05						
Benzene	22.2		µg/kg dry	20.0	BRL	111	70-130	1.82	30	
Chlorobenzene	22.3		µg/kg dry	20.0	BRL	112	70-130	5.50	30	
1,1-Dichloroethene	22.0		µg/kg dry	20.0	BRL	110	70-130	4.65	30	
Toluene	22.5		µg/kg dry	20.0	BRL	112	70-130	3.64	30	
Trichloroethene	21.6		µg/kg dry	20.0	BRL	108	70-130	0.930	30	
Surrogate: 4-Bromofluorobenzene	*49.4*		µg/kg dry	*50.0*		*98.8*	*70-130*			
Surrogate: Toluene-d8	*48.8*		µg/kg dry	*50.0*		*97.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*53.3*		µg/kg dry	*50.0*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*50.8*		µg/kg dry	*50.0*		*102*	*70-130*			
Batch 5071721 - SW846 5030 Soil (high level)										
Blank (5071721-BLK1)				Prepared & Analyzed: 28-Jul-05						
Acetone	BRL	20.0	µg/kg wet							
Acrylonitrile	BRL	1.0	µg/kg wet							
Benzene	BRL	1.0	µg/kg wet							
Bromobenzene	BRL	1.0	µg/kg wet							
Bromochloromethane	BRL	1.0	µg/kg wet							
Bromodichloromethane	BRL	1.0	µg/kg wet							
Bromoform	BRL	1.0	µg/kg wet							
Bromomethane	BRL	2.0	µg/kg wet							
2-Butanone (MEK)	BRL	10.0	µg/kg wet							
n-Butylbenzene	BRL	1.0	µg/kg wet							
sec-Butylbenzene	BRL	1.0	µg/kg wet							
tert-Butylbenzene	BRL	1.0	µg/kg wet							
Carbon disulfide	BRL	5.0	µg/kg wet							
Carbon tetrachloride	BRL	1.0	µg/kg wet							
Chlorobenzene	BRL	1.0	µg/kg wet							
Chloroethane	BRL	2.0	µg/kg wet							
Chloroform	BRL	1.0	µg/kg wet							
Chloromethane	BRL	2.0	µg/kg wet							
2-Chlorotoluene	BRL	1.0	µg/kg wet							
4-Chlorotoluene	BRL	1.0	µg/kg wet							
1,2-Dibromo-3-chloropropane	BRL	2.0	µg/kg wet							
Dibromochloromethane	BRL	1.0	µg/kg wet							
1,2-Dibromoethane (EDB)	BRL	1.0	µg/kg wet							
Dibromomethane	BRL	1.0	µg/kg wet							
1,2-Dichlorobenzene	BRL	1.0	µg/kg wet							
1,3-Dichlorobenzene	BRL	1.0	µg/kg wet							
1,4-Dichlorobenzene	BRL	1.0	µg/kg wet							
Dichlorodifluoromethane (Freon12)	BRL	2.0	µg/kg wet							
1,1-Dichloroethane	BRL	1.0	µg/kg wet							
1,2-Dichloroethane	BRL	1.0	µg/kg wet							
1,1-Dichloroethene	BRL	1.0	µg/kg wet							
cis-1,2-Dichloroethene	BRL	1.0	µg/kg wet							
trans-1,2-Dichloroethene	BRL	1.0	µg/kg wet							
1,2-Dichloropropane	BRL	1.0	µg/kg wet							
1,3-Dichloropropane	BRL	1.0	µg/kg wet							
2,2-Dichloropropane	BRL	1.0	µg/kg wet							

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071721 - SW846 5030 Soil (high level)										
Blank (5071721-BLK1)				Prepared & Analyzed: 28-Jul-05						
1,1-Dichloropropene	BRL	1.0	µg/kg wet							
cis-1,3-Dichloropropene	BRL	1.0	µg/kg wet							
trans-1,3-Dichloropropene	BRL	1.0	µg/kg wet							
Ethylbenzene	BRL	1.0	µg/kg wet							
Hexachlorobutadiene	BRL	1.0	µg/kg wet							
2-Hexanone (MBK)	BRL	10.0	µg/kg wet							
Isopropylbenzene	BRL	1.0	µg/kg wet							
4-Isopropyltoluene	BRL	1.0	µg/kg wet							
Methyl tert-butyl ether	BRL	1.0	µg/kg wet							
4-Methyl-2-pentanone (MIBK)	BRL	10.0	µg/kg wet							
Methylene chloride	BRL	10.0	µg/kg wet							
Naphthalene	BRL	1.0	µg/kg wet							
n-Propylbenzene	BRL	1.0	µg/kg wet							
Styrene	BRL	1.0	µg/kg wet							
1,1,1,2-Tetrachloroethane	BRL	1.0	µg/kg wet							
1,1,2,2-Tetrachloroethane	BRL	1.0	µg/kg wet							
Tetrachloroethene	BRL	1.0	µg/kg wet							
Toluene	BRL	1.0	µg/kg wet							
1,2,3-Trichlorobenzene	BRL	1.0	µg/kg wet							
1,2,4-Trichlorobenzene	BRL	1.0	µg/kg wet							
1,1,1-Trichloroethane	BRL	1.0	µg/kg wet							
1,1,2-Trichloroethane	BRL	1.0	µg/kg wet							
Trichloroethene	BRL	1.0	µg/kg wet							
Trichlorofluoromethane (Freon 11)	BRL	1.0	µg/kg wet							
1,2,3-Trichloropropane	BRL	1.0	µg/kg wet							
1,2,4-Trimethylbenzene	BRL	1.0	µg/kg wet							
1,3,5-Trimethylbenzene	BRL	1.0	µg/kg wet							
Vinyl chloride	BRL	1.0	µg/kg wet							
m,p-Xylene	BRL	2.0	µg/kg wet							
o-Xylene	BRL	1.0	µg/kg wet							
Surrogate: 4-Bromofluorobenzene	*53.8*		µg/kg wet	*50.0*		*108*	*70-130*			
Surrogate: Toluene-d8	*47.2*		µg/kg wet	*50.0*		*94.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*61.1*		µg/kg wet	*50.0*		*122*	*70-130*			
Surrogate: Dibromofluoromethane	*50.4*		µg/kg wet	*50.0*		*101*	*70-130*			
LCS (5071721-BS1)				Prepared & Analyzed: 28-Jul-05						
Acetone	22.3		µg/kg wet	20.0		112	19.4-217			
Acrylonitrile	15.5		µg/kg wet	20.0		77.5	70-130			
Benzene	20.0		µg/kg wet	20.0		100	70-130			
Bromobenzene	21.1		µg/kg wet	20.0		106	70-130			
Bromochloromethane	18.3		µg/kg wet	20.0		91.5	70-130			
Bromodichloromethane	23.1		µg/kg wet	20.0		116	70-130			
Bromoform	20.5		µg/kg wet	20.0		102	70-130			
Bromomethane	19.6		µg/kg wet	20.0		98.0	48.6-171			
2-Butanone (MEK)	21.9		µg/kg wet	20.0		110	16.5-153			
n-Butylbenzene	18.7		µg/kg wet	20.0		93.5	70-130			
sec-Butylbenzene	21.4		µg/kg wet	20.0		107	70-130			
tert-Butylbenzene	22.4		µg/kg wet	20.0		112	70-130			
Carbon disulfide	12.6		µg/kg wet	20.0		63.0	70-130			QC-2
Carbon tetrachloride	16.8		µg/kg wet	20.0		84.0	70-130			
Chlorobenzene	20.6		µg/kg wet	20.0		103	70-130			
Chloroethane	16.2		µg/kg wet	20.0		81.0	68.8-140			
Chloroform	18.7		µg/kg wet	20.0		93.5	70-130			
Chloromethane	21.2		µg/kg wet	20.0		106	70-130			
2-Chlorotoluene	21.5		µg/kg wet	20.0		108	70-130			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071721 - SW846 5030 Soil (high level)										
LCS (5071721-BS1)				Prepared & Analyzed: 28-Jul-05						
4-Chlorotoluene	21.4		µg/kg wet	20.0		107	70-130			
1,2-Dibromo-3-chloropropane	19.8		µg/kg wet	20.0		99.0	70-130			
Dibromochloromethane	13.7		µg/kg wet	20.0		68.5	53.9-173			
1,2-Dibromoethane (EDB)	18.8		µg/kg wet	20.0		94.0	70-130			
Dibromomethane	18.4		µg/kg wet	20.0		92.0	70-130			
1,2-Dichlorobenzene	19.6		µg/kg wet	20.0		98.0	70-130			
1,3-Dichlorobenzene	20.9		µg/kg wet	20.0		104	70-130			
1,4-Dichlorobenzene	19.4		µg/kg wet	20.0		97.0	70-130			
Dichlorodifluoromethane (Freon12)	25.7		µg/kg wet	20.0		128	59.6-150			
1,1-Dichloroethane	18.8		µg/kg wet	20.0		94.0	70-130			
1,2-Dichloroethane	23.2		µg/kg wet	20.0		116	70-130			
1,1-Dichloroethene	16.4		µg/kg wet	20.0		82.0	70-130			
cis-1,2-Dichloroethene	18.5		µg/kg wet	20.0		92.5	70-130			
trans-1,2-Dichloroethene	17.2		µg/kg wet	20.0		86.0	70-130			
1,2-Dichloropropane	18.2		µg/kg wet	20.0		91.0	70-130			
1,3-Dichloropropane	17.6		µg/kg wet	20.0		88.0	70-130			
2,2-Dichloropropane	27.2		µg/kg wet	20.0		136	70-130			QC-2
1,1-Dichloropropene	22.2		µg/kg wet	20.0		111	70-130			
cis-1,3-Dichloropropene	21.9		µg/kg wet	20.0		110	70-130			
trans-1,3-Dichloropropene	23.0		µg/kg wet	20.0		115	70-130			
Ethylbenzene	20.0		µg/kg wet	20.0		100	70-130			
Hexachlorobutadiene	23.9		µg/kg wet	20.0		120	67.9-157			
2-Hexanone (MBK)	21.7		µg/kg wet	20.0		108	70-130			
Isopropylbenzene	20.9		µg/kg wet	20.0		104	70-130			
4-Isopropyltoluene	20.4		µg/kg wet	20.0		102	70-130			
Methyl tert-butyl ether	18.7		µg/kg wet	20.0		93.5	70-130			
4-Methyl-2-pentanone (MIBK)	17.8		µg/kg wet	20.0		89.0	43.9-154			
Methylene chloride	16.2		µg/kg wet	20.0		81.0	70-130			
Naphthalene	17.0		µg/kg wet	20.0		85.0	70-130			
n-Propylbenzene	20.8		µg/kg wet	20.0		104	70-130			
Styrene	20.2		µg/kg wet	20.0		101	70-130			
1,1,1,2-Tetrachloroethane	21.5		µg/kg wet	20.0		108	70-130			
1,1,2,2-Tetrachloroethane	17.1		µg/kg wet	20.0		85.5	70-130			
Tetrachloroethene	20.6		µg/kg wet	20.0		103	70-130			
Toluene	17.3		µg/kg wet	20.0		86.5	70-130			
1,2,3-Trichlorobenzene	20.4		µg/kg wet	20.0		102	70-130			
1,2,4-Trichlorobenzene	20.6		µg/kg wet	20.0		103	70-130			
1,1,1-Trichloroethane	23.7		µg/kg wet	20.0		118	70-130			
1,1,2-Trichloroethane	17.4		µg/kg wet	20.0		87.0	70-130			
Trichloroethene	20.0		µg/kg wet	20.0		100	70-130			
Trichlorofluoromethane (Freon 11)	21.6		µg/kg wet	20.0		108	70-138			
1,2,3-Trichloropropane	18.9		µg/kg wet	20.0		94.5	70-130			
1,2,4-Trimethylbenzene	21.6		µg/kg wet	20.0		108	70-130			
1,3,5-Trimethylbenzene	21.9		µg/kg wet	20.0		110	70-130			
Vinyl chloride	25.6		µg/kg wet	20.0		128	70-130			
m,p-Xylene	40.2		µg/kg wet	40.0		100	70-130			
o-Xylene	21.6		µg/kg wet	20.0		108	70-130			
Surrogate: 4-Bromofluorobenzene	*53.0*		µg/kg wet	*50.0*		*106*	*70-130*			
Surrogate: Toluene-d8	*46.4*		µg/kg wet	*50.0*		*92.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*54.2*		µg/kg wet	*50.0*		*108*	*70-130*			
Surrogate: Dibromofluoromethane	*49.5*		µg/kg wet	*50.0*		*99.0*	*70-130*			
LCS Dup (5071721-BSD1)				Prepared & Analyzed: 28-Jul-05						
Acetone	19.6		µg/kg wet	20.0		98.0	19.4-217	13.3	50	
Acrylonitrile	15.8		µg/kg wet	20.0		79.0	70-130	1.92	25	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071721 - SW846 5030 Soil (high level)										
LCS Dup (5071721-BSD1)				Prepared & Analyzed: 28-Jul-05						
Benzene	19.6		µg/kg wet	20.0		98.0	70-130	2.02	25	
Bromobenzene	21.3		µg/kg wet	20.0		106	70-130	0.00	25	
Bromochloromethane	18.0		µg/kg wet	20.0		90.0	70-130	1.65	25	
Bromodichloromethane	22.5		µg/kg wet	20.0		112	70-130	3.51	25	
Bromoform	21.2		µg/kg wet	20.0		106	70-130	3.85	25	
Bromomethane	19.2		µg/kg wet	20.0		96.0	48.6-171	2.06	50	
2-Butanone (MEK)	18.4		µg/kg wet	20.0		92.0	16.5-153	17.8	50	
n-Butylbenzene	19.4		µg/kg wet	20.0		97.0	70-130	3.67	25	
sec-Butylbenzene	21.8		µg/kg wet	20.0		109	70-130	1.85	25	
tert-Butylbenzene	22.6		µg/kg wet	20.0		113	70-130	0.889	25	
Carbon disulfide	12.4		µg/kg wet	20.0		62.0	70-130	1.60	25	QC-2
Carbon tetrachloride	16.3		µg/kg wet	20.0		81.5	70-130	3.02	25	
Chlorobenzene	20.3		µg/kg wet	20.0		102	70-130	0.976	25	
Chloroethane	16.8		µg/kg wet	20.0		84.0	68.8-140	3.64	50	
Chloroform	17.9		µg/kg wet	20.0		89.5	70-130	4.37	25	
Chloromethane	21.2		µg/kg wet	20.0		106	70-130	0.00	25	
2-Chlorotoluene	21.7		µg/kg wet	20.0		108	70-130	0.00	25	
4-Chlorotoluene	21.0		µg/kg wet	20.0		105	70-130	1.89	25	
1,2-Dibromo-3-chloropropane	20.4		µg/kg wet	20.0		102	70-130	2.99	25	
Dibromochloromethane	13.7		µg/kg wet	20.0		68.5	53.9-173	0.00	50	
1,2-Dibromoethane (EDB)	19.1		µg/kg wet	20.0		95.5	70-130	1.58	25	
Dibromomethane	18.7		µg/kg wet	20.0		93.5	70-130	1.62	25	
1,2-Dichlorobenzene	19.5		µg/kg wet	20.0		97.5	70-130	0.512	25	
1,3-Dichlorobenzene	21.1		µg/kg wet	20.0		106	70-130	1.90	25	
1,4-Dichlorobenzene	19.5		µg/kg wet	20.0		97.5	70-130	0.514	25	
Dichlorodifluoromethane (Freon12)	25.8		µg/kg wet	20.0		129	59.6-150	0.778	50	
1,1-Dichloroethane	18.5		µg/kg wet	20.0		92.5	70-130	1.61	25	
1,2-Dichloroethane	22.6		µg/kg wet	20.0		113	70-130	2.62	25	
1,1-Dichloroethene	16.7		µg/kg wet	20.0		83.5	70-130	1.81	25	
cis-1,2-Dichloroethene	17.8		µg/kg wet	20.0		89.0	70-130	3.86	25	
trans-1,2-Dichloroethene	17.4		µg/kg wet	20.0		87.0	70-130	1.16	25	
1,2-Dichloropropane	17.8		µg/kg wet	20.0		89.0	70-130	2.22	25	
1,3-Dichloropropane	18.4		µg/kg wet	20.0		92.0	70-130	4.44	25	
2,2-Dichloropropane	26.8		µg/kg wet	20.0		134	70-130	1.48	25	QC-2
1,1-Dichloropropene	22.1		µg/kg wet	20.0		110	70-130	0.905	25	
cis-1,3-Dichloropropene	21.6		µg/kg wet	20.0		108	70-130	1.83	25	
trans-1,3-Dichloropropene	22.4		µg/kg wet	20.0		112	70-130	2.64	25	
Ethylbenzene	20.1		µg/kg wet	20.0		100	70-130	0.00	25	
Hexachlorobutadiene	24.6		µg/kg wet	20.0		123	67.9-157	2.47	50	
2-Hexanone (MBK)	18.9		µg/kg wet	20.0		94.5	70-130	13.3	25	
Isopropylbenzene	20.7		µg/kg wet	20.0		104	70-130	0.00	25	
4-Isopropyltoluene	20.7		µg/kg wet	20.0		104	70-130	1.94	25	
Methyl tert-butyl ether	18.8		µg/kg wet	20.0		94.0	70-130	0.533	25	
4-Methyl-2-pentanone (MIBK)	18.0		µg/kg wet	20.0		90.0	43.9-154	1.12	50	
Methylene chloride	16.1		µg/kg wet	20.0		80.5	70-130	0.619	25	
Naphthalene	18.2		µg/kg wet	20.0		91.0	70-130	6.82	25	
n-Propylbenzene	20.0		µg/kg wet	20.0		100	70-130	3.92	25	
Styrene	20.1		µg/kg wet	20.0		100	70-130	0.995	25	
1,1,1,2-Tetrachloroethane	21.2		µg/kg wet	20.0		106	70-130	1.87	25	
1,1,2,2-Tetrachloroethane	17.2		µg/kg wet	20.0		86.0	70-130	0.583	25	
Tetrachloroethene	21.2		µg/kg wet	20.0		106	70-130	2.87	25	
Toluene	17.0		µg/kg wet	20.0		85.0	70-130	1.75	25	
1,2,3-Trichlorobenzene	20.7		µg/kg wet	20.0		104	70-130	1.94	25	
1,2,4-Trichlorobenzene	20.6		µg/kg wet	20.0		103	70-130	0.00	25	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071721 - SW846 5030 Soil (high level)										
LCS Dup (5071721-BSD1)				Prepared & Analyzed: 28-Jul-05						
1,1,1-Trichloroethane	23.6		µg/kg wet	20.0		118	70-130	0.00	25	
1,1,2-Trichloroethane	17.1		µg/kg wet	20.0		85.5	70-130	1.74	25	
Trichloroethene	18.7		µg/kg wet	20.0		93.5	70-130	6.72	25	
Trichlorofluoromethane (Freon 11)	21.3		µg/kg wet	20.0		106	70-138	1.87	50	
1,2,3-Trichloropropane	19.8		µg/kg wet	20.0		99.0	70-130	4.65	25	
1,2,4-Trimethylbenzene	22.9		µg/kg wet	20.0		114	70-130	5.41	25	
1,3,5-Trimethylbenzene	22.4		µg/kg wet	20.0		112	70-130	1.80	25	
Vinyl chloride	25.7		µg/kg wet	20.0		128	70-130	0.00	25	
m,p-Xylene	41.6		µg/kg wet	40.0		104	70-130	3.92	25	
o-Xylene	22.0		µg/kg wet	20.0		110	70-130	1.83	25	
Surrogate: 4-Bromofluorobenzene	*53.2*		µg/kg wet	*50.0*		*106*	*70-130*			
Surrogate: Toluene-d8	*46.8*		µg/kg wet	*50.0*		*93.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*52.7*		µg/kg wet	*50.0*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*50.4*		µg/kg wet	*50.0*		*101*	*70-130*			
Matrix Spike (5071721-MS1)	**Source: SA31398-21**			Prepared & Analyzed: 28-Jul-05						
Benzene	18.9		µg/kg dry	20.0	BRL	94.5	70-130			
Chlorobenzene	19.3		µg/kg dry	20.0	BRL	96.5	70-130			
1,1-Dichloroethene	16.2		µg/kg dry	20.0	BRL	81.0	70-130			
Toluene	17.5		µg/kg dry	20.0	BRL	87.5	70-130			
Trichloroethene	17.9		µg/kg dry	20.0	BRL	89.5	70-130			
Surrogate: 4-Bromofluorobenzene	*54.7*		µg/kg dry	*50.0*		*109*	*70-130*			
Surrogate: Toluene-d8	*49.9*		µg/kg dry	*50.0*		*99.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*54.9*		µg/kg dry	*50.0*		*110*	*70-130*			
Surrogate: Dibromofluoromethane	*49.8*		µg/kg dry	*50.0*		*99.6*	*70-130*			
Matrix Spike Dup (5071721-MSD1)	**Source: SA31398-21**			Prepared & Analyzed: 28-Jul-05						
Benzene	19.4		µg/kg dry	20.0	BRL	97.0	70-130	2.61	30	
Chlorobenzene	21.0		µg/kg dry	20.0	BRL	105	70-130	8.44	30	
1,1-Dichloroethene	15.5		µg/kg dry	20.0	BRL	77.5	70-130	4.42	30	
Toluene	18.7		µg/kg dry	20.0	BRL	93.5	70-130	6.63	30	
Trichloroethene	18.2		µg/kg dry	20.0	BRL	91.0	70-130	1.66	30	
Surrogate: 4-Bromofluorobenzene	*53.5*		µg/kg dry	*50.0*		*107*	*70-130*			
Surrogate: Toluene-d8	*50.4*		µg/kg dry	*50.0*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*50.4*		µg/kg dry	*50.0*		*101*	*70-130*			
Surrogate: Dibromofluoromethane	*48.9*		µg/kg dry	*50.0*		*97.8*	*70-130*			
Batch 5071804 - SW846 5030 Soil (high level)										
Blank (5071804-BLK1)				Prepared & Analyzed: 29-Jul-05						
Acetone	BRL	20.0	µg/kg wet							
Acrylonitrile	BRL	1.0	µg/kg wet							
Benzene	BRL	1.0	µg/kg wet							
Bromobenzene	BRL	1.0	µg/kg wet							
Bromochloromethane	BRL	1.0	µg/kg wet							
Bromodichloromethane	BRL	1.0	µg/kg wet							
Bromoform	BRL	1.0	µg/kg wet							
Bromomethane	BRL	2.0	µg/kg wet							
2-Butanone (MEK)	BRL	10.0	µg/kg wet							
n-Butylbenzene	BRL	1.0	µg/kg wet							
sec-Butylbenzene	BRL	1.0	µg/kg wet							
tert-Butylbenzene	BRL	1.0	µg/kg wet							
Carbon disulfide	BRL	5.0	µg/kg wet							
Carbon tetrachloride	BRL	1.0	µg/kg wet							
Chlorobenzene	BRL	1.0	µg/kg wet							
Chloroethane	BRL	2.0	µg/kg wet							

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071804 - SW846 5030 Soil (high level)										
Blank (5071804-BLK1)				Prepared & Analyzed: 29-Jul-05						
Chloroform	BRL	1.0	µg/kg wet							
Chloromethane	BRL	2.0	µg/kg wet							
2-Chlorotoluene	BRL	1.0	µg/kg wet							
4-Chlorotoluene	BRL	1.0	µg/kg wet							
1,2-Dibromo-3-chloropropane	BRL	2.0	µg/kg wet							
Dibromochloromethane	BRL	1.0	µg/kg wet							
1,2-Dibromoethane (EDB)	BRL	1.0	µg/kg wet							
Dibromomethane	BRL	1.0	µg/kg wet							
1,2-Dichlorobenzene	BRL	1.0	µg/kg wet							
1,3-Dichlorobenzene	BRL	1.0	µg/kg wet							
1,4-Dichlorobenzene	BRL	1.0	µg/kg wet							
Dichlorodifluoromethane (Freon12)	BRL	2.0	µg/kg wet							
1,1-Dichloroethane	BRL	1.0	µg/kg wet							
1,2-Dichloroethane	BRL	1.0	µg/kg wet							
1,1-Dichloroethene	BRL	1.0	µg/kg wet							
cis-1,2-Dichloroethene	BRL	1.0	µg/kg wet							
trans-1,2-Dichloroethene	BRL	1.0	µg/kg wet							
1,2-Dichloropropane	BRL	1.0	µg/kg wet							
1,3-Dichloropropane	BRL	1.0	µg/kg wet							
2,2-Dichloropropane	BRL	1.0	µg/kg wet							
1,1-Dichloropropene	BRL	1.0	µg/kg wet							
cis-1,3-Dichloropropene	BRL	1.0	µg/kg wet							
trans-1,3-Dichloropropene	BRL	1.0	µg/kg wet							
Ethylbenzene	BRL	1.0	µg/kg wet							
Hexachlorobutadiene	BRL	1.0	µg/kg wet							
2-Hexanone (MBK)	BRL	10.0	µg/kg wet							
Isopropylbenzene	BRL	1.0	µg/kg wet							
4-Isopropyltoluene	BRL	1.0	µg/kg wet							
Methyl tert-butyl ether	BRL	1.0	µg/kg wet							
4-Methyl-2-pentanone (MIBK)	BRL	10.0	µg/kg wet							
Methylene chloride	BRL	10.0	µg/kg wet							
Naphthalene	BRL	1.0	µg/kg wet							
n-Propylbenzene	BRL	1.0	µg/kg wet							
Styrene	BRL	1.0	µg/kg wet							
1,1,1,2-Tetrachloroethane	BRL	1.0	µg/kg wet							
1,1,2,2-Tetrachloroethane	BRL	1.0	µg/kg wet							
Tetrachloroethene	BRL	1.0	µg/kg wet							
Toluene	BRL	1.0	µg/kg wet							
1,2,3-Trichlorobenzene	BRL	1.0	µg/kg wet							
1,2,4-Trichlorobenzene	BRL	1.0	µg/kg wet							
1,1,1-Trichloroethane	BRL	1.0	µg/kg wet							
1,1,2-Trichloroethane	BRL	1.0	µg/kg wet							
Trichloroethene	BRL	1.0	µg/kg wet							
Trichlorofluoromethane (Freon 11)	BRL	1.0	µg/kg wet							
1,2,3-Trichloropropane	BRL	1.0	µg/kg wet							
1,2,4-Trimethylbenzene	BRL	1.0	µg/kg wet							
1,3,5-Trimethylbenzene	BRL	1.0	µg/kg wet							
Vinyl chloride	BRL	1.0	µg/kg wet							
m,p-Xylene	BRL	2.0	µg/kg wet							
o-Xylene	BRL	1.0	µg/kg wet							
Surrogate: 4-Bromofluorobenzene	*49.9*		µg/kg wet	*50.0*		*99.8*	*70-130*			
Surrogate: Toluene-d8	*47.8*		µg/kg wet	*50.0*		*95.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*49.5*		µg/kg wet	*50.0*		*99.0*	*70-130*			
Surrogate: Dibromofluoromethane	*47.0*		µg/kg wet	*50.0*		*94.0*	*70-130*			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071804 - SW846 5030 Soil (high level)										
LCS (5071804-BS1)				Prepared & Analyzed: 29-Jul-05						
Acetone	18.0		µg/kg wet	20.0		90.0	19.4-217			
Acrylonitrile	18.2		µg/kg wet	20.0		91.0	70-130			
Benzene	19.7		µg/kg wet	20.0		98.5	70-130			
Bromobenzene	20.5		µg/kg wet	20.0		102	70-130			
Bromochloromethane	20.0		µg/kg wet	20.0		100	70-130			
Bromodichloromethane	20.5		µg/kg wet	20.0		102	70-130			
Bromoform	18.3		µg/kg wet	20.0		91.5	70-130			
Bromomethane	23.5		µg/kg wet	20.0		118	48.6-171			
2-Butanone (MEK)	19.4		µg/kg wet	20.0		97.0	16.5-153			
n-Butylbenzene	20.0		µg/kg wet	20.0		100	70-130			
sec-Butylbenzene	20.2		µg/kg wet	20.0		101	70-130			
tert-Butylbenzene	20.0		µg/kg wet	20.0		100	70-130			
Carbon disulfide	19.1		µg/kg wet	20.0		95.5	70-130			
Carbon tetrachloride	18.6		µg/kg wet	20.0		93.0	70-130			
Chlorobenzene	19.9		µg/kg wet	20.0		99.5	70-130			
Chloroethane	21.2		µg/kg wet	20.0		106	68.8-140			
Chloroform	19.6		µg/kg wet	20.0		98.0	70-130			
Chloromethane	23.4		µg/kg wet	20.0		117	70-130			
2-Chlorotoluene	19.8		µg/kg wet	20.0		99.0	70-130			
4-Chlorotoluene	19.7		µg/kg wet	20.0		98.5	70-130			
1,2-Dibromo-3-chloropropane	17.2		µg/kg wet	20.0		86.0	70-130			
Dibromochloromethane	19.2		µg/kg wet	20.0		96.0	53.9-173			
1,2-Dibromoethane (EDB)	19.4		µg/kg wet	20.0		97.0	70-130			
Dibromomethane	20.2		µg/kg wet	20.0		101	70-130			
1,2-Dichlorobenzene	21.2		µg/kg wet	20.0		106	70-130			
1,3-Dichlorobenzene	21.0		µg/kg wet	20.0		105	70-130			
1,4-Dichlorobenzene	21.0		µg/kg wet	20.0		105	70-130			
Dichlorodifluoromethane (Freon12)	27.4		µg/kg wet	20.0		137	59.6-150			
1,1-Dichloroethane	19.5		µg/kg wet	20.0		97.5	70-130			
1,2-Dichloroethane	19.6		µg/kg wet	20.0		98.0	70-130			
1,1-Dichloroethene	19.3		µg/kg wet	20.0		96.5	70-130			
cis-1,2-Dichloroethene	20.3		µg/kg wet	20.0		102	70-130			
trans-1,2-Dichloroethene	19.2		µg/kg wet	20.0		96.0	70-130			
1,2-Dichloropropane	20.4		µg/kg wet	20.0		102	70-130			
1,3-Dichloropropane	20.6		µg/kg wet	20.0		103	70-130			
2,2-Dichloropropane	24.0		µg/kg wet	20.0		120	70-130			
1,1-Dichloropropene	20.5		µg/kg wet	20.0		102	70-130			
cis-1,3-Dichloropropene	20.8		µg/kg wet	20.0		104	70-130			
trans-1,3-Dichloropropene	21.0		µg/kg wet	20.0		105	70-130			
Ethylbenzene	19.4		µg/kg wet	20.0		97.0	70-130			
Hexachlorobutadiene	21.5		µg/kg wet	20.0		108	67.9-157			
2-Hexanone (MBK)	23.3		µg/kg wet	20.0		116	70-130			
Isopropylbenzene	18.8		µg/kg wet	20.0		94.0	70-130			
4-Isopropyltoluene	21.1		µg/kg wet	20.0		106	70-130			
Methyl tert-butyl ether	20.0		µg/kg wet	20.0		100	70-130			
4-Methyl-2-pentanone (MIBK)	16.1		µg/kg wet	20.0		80.5	43.9-154			
Methylene chloride	21.0		µg/kg wet	20.0		105	70-130			
Naphthalene	20.2		µg/kg wet	20.0		101	70-130			
n-Propylbenzene	19.6		µg/kg wet	20.0		98.0	70-130			
Styrene	19.3		µg/kg wet	20.0		96.5	70-130			
1,1,1,2-Tetrachloroethane	20.4		µg/kg wet	20.0		102	70-130			
1,1,2,2-Tetrachloroethane	20.7		µg/kg wet	20.0		104	70-130			
Tetrachloroethene	20.3		µg/kg wet	20.0		102	70-130			
Toluene	19.3		µg/kg wet	20.0		96.5	70-130			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071804 - SW846 5030 Soil (high level)										
LCS (5071804-BS1)				Prepared & Analyzed: 29-Jul-05						
1,2,3-Trichlorobenzene	20.8		µg/kg wet	20.0		104	70-130			
1,2,4-Trichlorobenzene	20.6		µg/kg wet	20.0		103	70-130			
1,1,1-Trichloroethane	19.4		µg/kg wet	20.0		97.0	70-130			
1,1,2-Trichloroethane	20.5		µg/kg wet	20.0		102	70-130			
Trichloroethene	18.4		µg/kg wet	20.0		92.0	70-130			
Trichlorofluoromethane (Freon 11)	20.9		µg/kg wet	20.0		104	70-138			
1,2,3-Trichloropropane	19.6		µg/kg wet	20.0		98.0	70-130			
1,2,4-Trimethylbenzene	19.6		µg/kg wet	20.0		98.0	70-130			
1,3,5-Trimethylbenzene	19.4		µg/kg wet	20.0		97.0	70-130			
Vinyl chloride	23.5		µg/kg wet	20.0		118	70-130			
m,p-Xylene	40.8		µg/kg wet	40.0		102	70-130			
o-Xylene	20.0		µg/kg wet	20.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	*48.4*		µg/kg wet	*50.0*		*96.8*	*70-130*			
Surrogate: Toluene-d8	*47.6*		µg/kg wet	*50.0*		*95.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*51.0*		µg/kg wet	*50.0*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*48.7*		µg/kg wet	*50.0*		*97.4*	*70-130*			
LCS Dup (5071804-BSD1)				Prepared & Analyzed: 29-Jul-05						
Acetone	21.2		µg/kg wet	20.0		106	19.4-217	16.3	50	
Acrylonitrile	17.7		µg/kg wet	20.0		88.5	70-130	2.79	25	
Benzene	20.0		µg/kg wet	20.0		100	70-130	1.51	25	
Bromobenzene	21.7		µg/kg wet	20.0		108	70-130	5.71	25	
Bromochloromethane	20.7		µg/kg wet	20.0		104	70-130	3.92	25	
Bromodichloromethane	20.4		µg/kg wet	20.0		102	70-130	0.00	25	
Bromoform	18.8		µg/kg wet	20.0		94.0	70-130	2.70	25	
Bromomethane	23.2		µg/kg wet	20.0		116	48.6-171	1.71	50	
2-Butanone (MEK)	14.1		µg/kg wet	20.0		70.5	16.5-153	31.6	50	
n-Butylbenzene	21.3		µg/kg wet	20.0		106	70-130	5.83	25	
sec-Butylbenzene	21.7		µg/kg wet	20.0		108	70-130	6.70	25	
tert-Butylbenzene	21.8		µg/kg wet	20.0		109	70-130	8.61	25	
Carbon disulfide	19.7		µg/kg wet	20.0		98.5	70-130	3.09	25	
Carbon tetrachloride	18.9		µg/kg wet	20.0		94.5	70-130	1.60	25	
Chlorobenzene	21.2		µg/kg wet	20.0		106	70-130	6.33	25	
Chloroethane	21.8		µg/kg wet	20.0		109	68.8-140	2.79	50	
Chloroform	19.7		µg/kg wet	20.0		98.5	70-130	0.509	25	
Chloromethane	25.0		µg/kg wet	20.0		125	70-130	6.61	25	
2-Chlorotoluene	21.5		µg/kg wet	20.0		108	70-130	8.70	25	
4-Chlorotoluene	21.2		µg/kg wet	20.0		106	70-130	7.33	25	
1,2-Dibromo-3-chloropropane	17.9		µg/kg wet	20.0		89.5	70-130	3.99	25	
Dibromochloromethane	19.8		µg/kg wet	20.0		99.0	53.9-173	3.08	50	
1,2-Dibromoethane (EDB)	19.8		µg/kg wet	20.0		99.0	70-130	2.04	25	
Dibromomethane	19.4		µg/kg wet	20.0		97.0	70-130	4.04	25	
1,2-Dichlorobenzene	21.4		µg/kg wet	20.0		107	70-130	0.939	25	
1,3-Dichlorobenzene	22.8		µg/kg wet	20.0		114	70-130	8.22	25	
1,4-Dichlorobenzene	21.9		µg/kg wet	20.0		110	70-130	4.65	25	
Dichlorodifluoromethane (Freon12)	28.3		µg/kg wet	20.0		142	59.6-150	3.58	50	
1,1-Dichloroethane	20.1		µg/kg wet	20.0		100	70-130	2.53	25	
1,2-Dichloroethane	19.9		µg/kg wet	20.0		99.5	70-130	1.52	25	
1,1-Dichloroethene	19.4		µg/kg wet	20.0		97.0	70-130	0.517	25	
cis-1,2-Dichloroethene	20.0		µg/kg wet	20.0		100	70-130	1.98	25	
trans-1,2-Dichloroethene	20.0		µg/kg wet	20.0		100	70-130	4.08	25	
1,2-Dichloropropane	20.6		µg/kg wet	20.0		103	70-130	0.976	25	
1,3-Dichloropropane	20.3		µg/kg wet	20.0		102	70-130	0.976	25	
2,2-Dichloropropane	24.3		µg/kg wet	20.0		122	70-130	1.65	25	
1,1-Dichloropropene	20.7		µg/kg wet	20.0		104	70-130	1.94	25	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071804 - SW846 5030 Soil (high level)										
LCS Dup (5071804-BSD1)				Prepared & Analyzed: 29-Jul-05						
cis-1,3-Dichloropropene	20.9		µg/kg wet	20.0		104	70-130	0.00	25	
trans-1,3-Dichloropropene	21.0		µg/kg wet	20.0		105	70-130	0.00	25	
Ethylbenzene	21.0		µg/kg wet	20.0		105	70-130	7.92	25	
Hexachlorobutadiene	22.9		µg/kg wet	20.0		114	67.9-157	5.41	50	
2-Hexanone (MBK)	26.5		µg/kg wet	20.0		132	70-130	12.9	25	QC-1
Isopropylbenzene	20.2		µg/kg wet	20.0		101	70-130	7.18	25	
4-Isopropyltoluene	22.5		µg/kg wet	20.0		112	70-130	5.50	25	
Methyl tert-butyl ether	19.8		µg/kg wet	20.0		99.0	70-130	1.01	25	
4-Methyl-2-pentanone (MIBK)	16.5		µg/kg wet	20.0		82.5	43.9-154	2.45	50	
Methylene chloride	21.4		µg/kg wet	20.0		107	70-130	1.89	25	
Naphthalene	20.5		µg/kg wet	20.0		102	70-130	0.985	25	
n-Propylbenzene	21.3		µg/kg wet	20.0		106	70-130	7.84	25	
Styrene	20.9		µg/kg wet	20.0		104	70-130	7.48	25	
1,1,1,2-Tetrachloroethane	20.8		µg/kg wet	20.0		104	70-130	1.94	25	
1,1,2,2-Tetrachloroethane	21.1		µg/kg wet	20.0		106	70-130	1.90	25	
Tetrachloroethene	21.2		µg/kg wet	20.0		106	70-130	3.85	25	
Toluene	20.1		µg/kg wet	20.0		100	70-130	3.56	25	
1,2,3-Trichlorobenzene	21.6		µg/kg wet	20.0		108	70-130	3.77	25	
1,2,4-Trichlorobenzene	21.2		µg/kg wet	20.0		106	70-130	2.87	25	
1,1,1-Trichloroethane	19.6		µg/kg wet	20.0		98.0	70-130	1.03	25	
1,1,2-Trichloroethane	21.1		µg/kg wet	20.0		106	70-130	3.85	25	
Trichloroethene	19.7		µg/kg wet	20.0		98.5	70-130	6.82	25	
Trichlorofluoromethane (Freon 11)	20.7		µg/kg wet	20.0		104	70-138	0.00	50	
1,2,3-Trichloropropane	19.9		µg/kg wet	20.0		99.5	70-130	1.52	25	
1,2,4-Trimethylbenzene	21.0		µg/kg wet	20.0		105	70-130	6.90	25	
1,3,5-Trimethylbenzene	21.1		µg/kg wet	20.0		106	70-130	8.87	25	
Vinyl chloride	21.5		µg/kg wet	20.0		108	70-130	8.85	25	
m,p-Xylene	44.2		µg/kg wet	40.0		110	70-130	7.55	25	
o-Xylene	21.8		µg/kg wet	20.0		109	70-130	8.61	25	
Surrogate: 4-Bromofluorobenzene	*50.6*		µg/kg wet	*50.0*		*101*	*70-130*			
Surrogate: Toluene-d8	*49.0*		µg/kg wet	*50.0*		*98.0*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*49.8*		µg/kg wet	*50.0*		*99.6*	*70-130*			
Surrogate: Dibromofluoromethane	*48.3*		µg/kg wet	*50.0*		*96.6*	*70-130*			
Matrix Spike (5071804-MS1)	**Source: SA31539-11**			Prepared & Analyzed: 29-Jul-05						
Benzene	19.4		µg/kg dry	20.0	BRL	97.0	70-130			
Chlorobenzene	20.3		µg/kg dry	20.0	BRL	102	70-130			
1,1-Dichloroethene	19.5		µg/kg dry	20.0	BRL	97.5	70-130			
Toluene	20.3		µg/kg dry	20.0	0.684	98.1	70-130			
Trichloroethene	19.6		µg/kg dry	20.0	BRL	98.0	70-130			
Surrogate: 4-Bromofluorobenzene	*50.5*		µg/kg dry	*50.0*		*101*	*70-130*			
Surrogate: Toluene-d8	*48.3*		µg/kg dry	*50.0*		*96.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*51.7*		µg/kg dry	*50.0*		*103*	*70-130*			
Surrogate: Dibromofluoromethane	*49.1*		µg/kg dry	*50.0*		*98.2*	*70-130*			
Matrix Spike (5071804-MS2)	**Source: SA31539-12**			Prepared & Analyzed: 29-Jul-05						
Benzene	20.8		µg/kg dry	20.0	BRL	104	70-130			
Chlorobenzene	21.5		µg/kg dry	20.0	BRL	108	70-130			
1,1-Dichloroethene	21.7		µg/kg dry	20.0	BRL	108	70-130			
Toluene	21.9		µg/kg dry	20.0	0.845	105	70-130			
Trichloroethene	19.6		µg/kg dry	20.0	BRL	98.0	70-130			
Surrogate: 4-Bromofluorobenzene	*48.6*		µg/kg dry	*50.0*		*97.2*	*70-130*			
Surrogate: Toluene-d8	*48.9*		µg/kg dry	*50.0*		*97.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*52.5*		µg/kg dry	*50.0*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*50.4*		µg/kg dry	*50.0*		*101*	*70-130*			

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071804 - SW846 5030 Soil (high level)										
Matrix Spike Dup (5071804-MSD1)		**Source: SA31539-11**		Prepared & Analyzed: 29-Jul-05						
Benzene	20.0		µg/kg dry	20.0	BRL	100	70-130	3.05	30	
Chlorobenzene	20.9		µg/kg dry	20.0	BRL	104	70-130	1.94	30	
1,1-Dichloroethene	20.0		µg/kg dry	20.0	BRL	100	70-130	2.53	30	
Toluene	21.2		µg/kg dry	20.0	0.684	103	70-130	4.87	30	
Trichloroethene	20.2		µg/kg dry	20.0	BRL	101	70-130	3.02	30	
Surrogate: 4-Bromofluorobenzene	*50.4*		µg/kg dry	*50.0*		*101*	*70-130*			
Surrogate: Toluene-d8	*49.6*		µg/kg dry	*50.0*		*99.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*52.1*		µg/kg dry	*50.0*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*49.7*		µg/kg dry	*50.0*		*99.4*	*70-130*			
Matrix Spike Dup (5071804-MSD2)		**Source: SA31539-12**		Prepared & Analyzed: 29-Jul-05						
Benzene	19.6		µg/kg dry	20.0	BRL	98.0	70-130	5.94	30	
Chlorobenzene	20.4		µg/kg dry	20.0	BRL	102	70-130	5.71	30	
1,1-Dichloroethene	19.0		µg/kg dry	20.0	BRL	95.0	70-130	12.8	30	
Toluene	21.1		µg/kg dry	20.0	0.845	101	70-130	3.88	30	
Trichloroethene	19.1		µg/kg dry	20.0	BRL	95.5	70-130	2.58	30	
Surrogate: 4-Bromofluorobenzene	*49.5*		µg/kg dry	*50.0*		*99.0*	*70-130*			
Surrogate: Toluene-d8	*49.3*		µg/kg dry	*50.0*		*98.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*50.6*		µg/kg dry	*50.0*		*101*	*70-130*			
Surrogate: Dibromofluoromethane	*47.8*		µg/kg dry	*50.0*		*95.6*	*70-130*			

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071700 - SW846 3545A										
Blank (5071700-BLK1)				Prepared: 28-Jul-05 Analyzed: 01-Aug-05						
Fuel Oil #2	BRL	13.3	mg/kg wet							
Fuel Oil #4	BRL	13.3	mg/kg wet							
Fuel Oil #6	BRL	13.3	mg/kg wet							
Motor Oil	BRL	13.3	mg/kg wet							
Aviation Fuel	BRL	13.3	mg/kg wet							
Unidentified	BRL	13.3	mg/kg wet							
Other Oil	BRL	13.3	mg/kg wet							
Diesel Range Organics (DRO)	BRL	13.3	mg/kg wet							
Surrogate: 1-Chlorooctadecane	*1.80*		mg/kg wet	*3.33*		*54.1*	*40-140*			
LCS (5071700-BS1)				Prepared: 28-Jul-05 Analyzed: 01-Aug-05						
Fuel Oil #2	623	13.3	mg/kg wet	667		93.4	40-140			
Surrogate: 1-Chlorooctadecane	*6.57*		mg/kg wet	*3.33*		*197*	*40-140*			*S-02*
Duplicate (5071700-DUP1)		**Source: SA31301-01**		Prepared: 28-Jul-05 Analyzed: 01-Aug-05						
Fuel Oil #2	6520	27.1	mg/kg dry		6380			2.17	50	
Fuel Oil #4	BRL	27.1	mg/kg dry		BRL				50	
Fuel Oil #6	BRL	27.1	mg/kg dry		BRL				50	
Motor Oil	BRL	27.1	mg/kg dry		BRL				50	
Aviation Fuel	BRL	27.1	mg/kg dry		BRL				50	
Unidentified	BRL	27.1	mg/kg dry		BRL				50	
Other Oil	BRL	27.1	mg/kg dry		BRL				50	
Diesel Range Organics (DRO)	6520	27.1	mg/kg dry		6380			2.17	50	
Surrogate: 1-Chlorooctadecane	*76.6*		mg/kg dry	*3.39*		*NR*	*40-140*			*S-02*

General Chemistry Parameters - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5071771 - General Preparation										
Duplicate (5071771-DUP1)		**Source: SA31618-02**		Prepared & Analyzed: 28-Jul-05						
% Solids	89.3		%		89.2			0.112	20	
Batch 5071795 - General Preparation										
Duplicate (5071795-DUP1)		**Source: SA31622-08**		Prepared & Analyzed: 29-Jul-05						
% Solids	93.5		%		93.8			0.320	20	
Batch 5080235 - General Preparation										
Blank (5080235-BLK1)				Prepared & Analyzed: 02-Aug-05						
Fractional Organic Carbon	BRL	100	N/A							
Blank (5080235-BLK2)				Prepared & Analyzed: 02-Aug-05						
Fractional Organic Carbon	BRL	100	N/A							
Duplicate (5080235-DUP1)		**Source: SA31364-01**		Prepared & Analyzed: 02-Aug-05						
Fractional Organic Carbon	0.0039	0.0001	N/A		0.0039			0.00	30	
Reference (5080235-SRM1)				Prepared & Analyzed: 02-Aug-05						
Fractional Organic Carbon	5200	100	N/A	5370		96.8	56-144			
Reference (5080235-SRM2)				Prepared & Analyzed: 02-Aug-05						
Fractional Organic Carbon	1090	100	N/A	1000		109	85-115			
Reference (5080235-SRM3)				Prepared & Analyzed: 02-Aug-05						
Fractional Organic Carbon	1050	100	N/A	1000		105	85-115			

Notes and Definitions

*TPH	Calculated as
QC-1	Analyte out of acceptance range.
QC-2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
R-05	The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
vext2	Field extracted
VOC10	The VOC field preserved soil sample is not within the 1:1 weight to volume ratio as recommended by SW846 methods 5030 and 5035 but may be within the 1:1 volume to volume ratio.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown

SAS13605 ✓

SPECTRUM ANALYTICAL, INC.
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CHAIN OF CUSTODY RECORD

Page 1 of 2

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS - Richmond

Project Mgr.: Ron Miller

Invoice To: ECS - Agawam
WW#5010413 ✓

P.O. No.: ~~[illegible]~~ RQN: _____

Project No.: 08-204262
Site Name: 521 Bay St
Location: St. Johnsbury State: VT
Sampler(s): KL / MG

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: 8021B	TPH-DRO	F.O.C						QA Reporting Notes: (check if needed)
SAS13605 01	SB-1-2	7/18/05	9:15	G	So	7/8	2	1	1		X	X							State specific reporting standards *If applicable, please list below.*
02	SB-1-8		9:30						1		X	X	X						☐ Provide MCP CAM Report
03	SB-2-3		9:45						1		X	X							Were all field QC requirements met as per MADEP CAM Section 2.0?
04	SB-2-3d		9:50						1		X	X							☐ Yes ☐ No
05	SB-2-11		10:00						1		X	X							*(Response required for CAM report)*
06	SB-5-4½		10:10						1		X	X							
07	SB-5-8		10:20						1		X	X							
08	SB-12-4		1:30						1		X	X							
09	SB-12-11		2:00						1		X	X	X						
10	SB-5-8d		10:30					✓	1		X	X							

☒ Fax results when available to (802) 434-6076
☐ E-mail to _____
EDD Format _____

Condition upon receipt: ☐ Iced ☐ Ambient ☐ °C 3

Relinquished by:	Received by:	Date:	Time:
K. Lafond 7/19/05 1500			
FedEx	VKimmell	7/21/05	840

SB1865

SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 2 of 2

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS - Richmond

Invoice To: ECS - Agawam

Project No.: 08-204262

Site Name: 521 Bay St

Location: St. Johnsbury State: VT

Project Mgr.: Ron Miller

P.O. No.: _____ RQN: _____

Sampler(s): KL/MG

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: 8021B	TPH-DRO	EDC	QA Reporting Notes: (check if needed)
SB1865-11	SB-13-4	7/18/05	3:00	G	So	7/8	2	1	1		X	X		State specific reporting standards *If applicable, please list below.*
12	SB-13-7	"	3:30	"	"						X	X		☐ Provide MCP CAM Report
13	SB-18-4	7/19/05	9:30								X	X	X	Were all field QC requirements met as per MADEP CAM Section 2.0?
14	SB-18-6		10:00								X	X		☐ Yes ☐ No
15	SB-17-2½		8:00								X	X	X	*(Response required for CAM report)*
16	SB-17-5		8:15								X	X	X	

☒ Fax results when available to (802) 434-6076

☐ E-mail to _____

EDD Format _____

Condition upon receipt: ☑ Iced ☐ Ambient ☐ °C 3

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature] Fedex	7/19/05		[signature]	7/21/05	840

Report Date:
15-Aug-05 11:54

SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

Environmental Compliance Services
65 Millet Street; Suite 301
Richmond, VT 05477
Attn: Ronald Miller

Project: Northern Petroleum-St Johnsbury, VT
Project #: 08-204262

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA31998-01	Blank	Ground Water	29-Jul-05 07:45	02-Aug-05 09:50
SA31998-02	MW-1	Ground Water	29-Jul-05 13:55	02-Aug-05 09:50
SA31998-03	MW-2 ECS	Ground Water	29-Jul-05 14:00	02-Aug-05 09:50
SA31998-04	MW-4	Ground Water	29-Jul-05 00:00	02-Aug-05 09:50
SA31998-05	MW-5	Ground Water	29-Jul-05 14:40	02-Aug-05 09:50
SA31998-06	MW-7	Product	29-Jul-05 14:05	02-Aug-05 09:50
SA31998-07	MW-8	Ground Water	29-Jul-05 14:30	02-Aug-05 09:50
SA31998-08	MW-11	Ground Water	29-Jul-05 14:35	02-Aug-05 09:50
SA31998-09	MW-12	Ground Water	29-Jul-05 14:30	02-Aug-05 09:50
SA31998-10	MW-13	Ground Water	29-Jul-05 14:25	02-Aug-05 09:50
SA31998-11	MW-16	Ground Water	29-Jul-05 13:20	02-Aug-05 09:50
SA31998-12	MW-17	Product	29-Jul-05 11:45	02-Aug-05 09:50
SA31998-13	MW-18	Ground Water	29-Jul-05 13:35	02-Aug-05 09:50
SA31998-14	MW-19	Product	29-Jul-05 12:55	02-Aug-05 09:50
SA31998-15	MW-22	Ground Water	29-Jul-05 13:45	02-Aug-05 09:50
SA31998-16	Duplicate	Ground Water	29-Jul-05 13:20	02-Aug-05 09:50
SA31998-17	MW-2	Ground Water	29-Jul-05 15:00	02-Aug-05 09:50
SA31998-18	MW-101	Ground Water	29-Jul-05 14:50	02-Aug-05 09:50
SA31998-19	MW-1R	Ground Water	29-Jul-05 14:40	02-Aug-05 09:50

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. All applicable NELAC requirements have been met
Please note that this report contains 26 pages of analytical data plus Chain of Custody document(s).
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Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538/2972
New York # 11393/11840
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

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Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method indicated. Please refer to our "Quality" webpage at www.spectrum-analytical.com for a full listing of our current certifications.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Blank SA31998-01	08-204262	Ground Water	29-Jul-05 07:45	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*93.4*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97.6*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*91.6*	*70-130 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-1 SA31998-02	08-204262	Ground Water	29-Jul-05 13:55	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	1,060	50.0 µg/l	50	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	1,560	50.0 µg/l	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	6,980	50.0 µg/l	50	"	"	"	"	"	
91-20-3	Naphthalene	632	50.0 µg/l	50	"	"	"	"	"	
108-88-3	Toluene	433	50.0 µg/l	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	1,830	50.0 µg/l	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	507	50.0 µg/l	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	6,120	100 µg/l	50	"	"	"	"	"	
95-47-6	o-Xylene	800	50.0 µg/l	50	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*95.0*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97.4*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*93.8*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	6.8	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	6.8	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*135*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2 ECS SA31998-03	08-204262	Ground Water	29-Jul-05 14:00	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	827	50.0 µg/l	50	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	398	50.0 µg/l	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	2,110	50.0 µg/l	50	"	"	"	"	"	
91-20-3	Naphthalene	304	50.0 µg/l	50	"	"	"	"	"	
108-88-3	Toluene	93.0	50.0 µg/l	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	416	50.0 µg/l	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	136	50.0 µg/l	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	1,420	100 µg/l	50	"	"	"	"	"	
95-47-6	o-Xylene	BRL	50.0 µg/l	50	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*97.6*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*125*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	13.2	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	13.2	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*123*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-4 SA31998-04	08-204262	Ground Water	29-Jul-05 00:00	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	4.9	1.0 µg/l	1	SW846 8260B	10-Aug-05	10-Aug-05	5080723	RLJ	
100-41-4	Ethylbenzene	2.0	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	38.8	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	1.3	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	4.6	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	7.5	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	2.5	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	11.4	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	2.7	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*104*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.4*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*92.2*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99.0*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	0.5	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	0.5	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*83.8*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-5 SA31998-05	08-204262	Ground Water	29-Jul-05 14:40	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	157	5.0 µg/l	5	SW846 8260B	10-Aug-05	10-Aug-05	5080723	RLJ	
100-41-4	Ethylbenzene	21.6	5.0 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	337	5.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	93.7	5.0 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	BRL	5.0 µg/l	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	159	5.0 µg/l	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	55.6	5.0 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	145	10.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	BRL	5.0 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*105*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97.8*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.3 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.3 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.3 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.3 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.3 mg/l	1	"	"	"	"	"	
	Unidentified	5.3	0.3 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.3 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	5.3	0.3 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*128*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-7 SA31998-06	08-204262	Product	29-Jul-05 14:05	02-Aug-05

CAS No.	*Analyte(s)*	*Result*	**RDL/Units*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Batch*	*Analyst*	*Flag*
Extractable Petroleum Hydrocarbons										
TPH 8100 by GC			Prepared by method SW846 3550B							
8006-61-9	Gasoline	BRL	3920 mg/kg	1	+SW846 8100Mod.	10-Aug-05	11-Aug-05	5080701	KG	
68476-30-2	Fuel Oil #2	201,000	3920 mg/kg	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL	3920 mg/kg	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	3920 mg/kg	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	3920 mg/kg	1	"	"	"	"	"	
8032-32-4	Ligroin	BRL	3920 mg/kg	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	3920 mg/kg	1	"	"	"	"	"	
	Unidentified	BRL	3920 mg/kg	1	"	"	"	"	"	
	Other Oil	BRL	3920 mg/kg	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	201,000	3920 mg/kg	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*672*	*40-140 %*		"	"	"	"	"	**S-02**

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-8 SA31998-07	08-204262	Ground Water	29-Jul-05 14:30	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	17.7	1.0 µg/l	1	SW846 8260B	10-Aug-05	10-Aug-05	5080723	RLJ	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	61.6	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*105*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97.6*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	5.4	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	5.4	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*142*	*40-140 %*		"	"	"	"	"	S-02

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-11 SA31998-08	08-204262	Ground Water	29-Jul-05 14:35	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	18.2	1.0 µg/l	1	SW846 8260B	10-Aug-05	10-Aug-05	5080723	RLJ	
100-41-4	Ethylbenzene	1.3	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	4.9	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	50.6	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	3.4	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	2.1	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*108*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99.6*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	6.7	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	BRL	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	6.7	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*120*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-12 SA31998-09	08-204262	Ground Water	29-Jul-05 14:30	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	10.0 µg/l	10	SW846 8260B	10-Aug-05	10-Aug-05	5080723	RLJ	
100-41-4	Ethylbenzene	162	10.0 µg/l	10	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	10.0 µg/l	10	"	"	"	"	"	
91-20-3	Naphthalene	438	10.0 µg/l	10	"	"	"	"	"	
108-88-3	Toluene	BRL	10.0 µg/l	10	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	760	10.0 µg/l	10	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	252	10.0 µg/l	10	"	"	"	"	"	
1330-20-7	m,p-Xylene	745	20.0 µg/l	10	"	"	"	"	"	
95-47-6	o-Xylene	13.7	10.0 µg/l	10	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*104*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.8*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	5.8	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	5.8	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*102*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-13 SA31998-10	08-204262	Ground Water	29-Jul-05 14:25	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	60.2	5.0 µg/l	5	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	29.0	5.0 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	154	5.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	103	5.0 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	BRL	5.0 µg/l	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	313	5.0 µg/l	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	135	5.0 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	191	10.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	7.1	5.0 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*99.0*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*121*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98.8*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	3.4	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	3.4	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*72.5*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-16 SA31998-11	08-204262	Ground Water	29-Jul-05 13:20	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	453	5.0 µg/l	5	SW846 8260B	10-Aug-05	10-Aug-05	5080723	RLJ	
100-41-4	Ethylbenzene	11.1	5.0 µg/l	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	43.8	5.0 µg/l	5	"	"	"	"	"	
91-20-3	Naphthalene	224	5.0 µg/l	5	"	"	"	"	"	
108-88-3	Toluene	5.8	5.0 µg/l	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	177	5.0 µg/l	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	64.6	5.0 µg/l	5	"	"	"	"	"	
1330-20-7	m,p-Xylene	39.6	10.0 µg/l	5	"	"	"	"	"	
95-47-6	o-Xylene	BRL	5.0 µg/l	5	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*106*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.2*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	2.6	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	2.6	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*83.2*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-17 SA31998-12	08-204262	Product	29-Jul-05 11:45	02-Aug-05

CAS No.	*Analyte(s)*	*Result*	**RDL/Units*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Batch*	*Analyst*	*Flag*
Extractable Petroleum Hydrocarbons										
TPH 8100 by GC			Prepared by method SW846 3550B							
8006-61-9	Gasoline	Calculated as	3380 mg/kg	1	+SW846 8100Mod.	10-Aug-05	11-Aug-05	5080701	KG	
68476-30-2	Fuel Oil #2	Calculated as	3380 mg/kg	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL	3380 mg/kg	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	3380 mg/kg	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	3380 mg/kg	1	"	"	"	"	"	
8032-32-4	Ligroin	BRL	3380 mg/kg	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	3380 mg/kg	1	"	"	"	"	"	
	Unidentified	70,200	3380 mg/kg	1	"	"	"	"	"	
	Other Oil	BRL	3380 mg/kg	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	70,200	3380 mg/kg	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*178*	*40-140 %*		"	"	"	"	"	S-02

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-18 SA31998-13	08-204262	Ground Water	29-Jul-05 13:35	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	2,770	100 µg/l	100	SW846 8260B	10-Aug-05	10-Aug-05	5080723	RLJ	
100-41-4	Ethylbenzene	1,310	100 µg/l	100	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	1,570	100 µg/l	100	"	"	"	"	"	
91-20-3	Naphthalene	824	100 µg/l	100	"	"	"	"	"	
108-88-3	Toluene	6,290	100 µg/l	100	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	3,230	100 µg/l	100	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	905	100 µg/l	100	"	"	"	"	"	
1330-20-7	m,p-Xylene	6,250	200 µg/l	100	"	"	"	"	"	
95-47-6	o-Xylene	2,820	100 µg/l	100	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*106*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99.4*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	15.3	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	15.3	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*165*	*40-140 %*		"	"	"	"	"	S-02

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-19 SA31998-14	08-204262	Product	29-Jul-05 12:55	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Extractable Petroleum Hydrocarbons										
TPH 8100 by GC			Prepared by method SW846 3550B							
8006-61-9	Gasoline	Calculated as	3710 mg/kg	1	+SW846 8100Mod.	10-Aug-05	11-Aug-05	5080701	KG	
68476-30-2	Fuel Oil #2	Calculated as	3710 mg/kg	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL	3710 mg/kg	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	3710 mg/kg	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	3710 mg/kg	1	"	"	"	"	"	
8032-32-4	Ligroin	BRL	3710 mg/kg	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	3710 mg/kg	1	"	"	"	"	"	
	Unidentified	23,200	3710 mg/kg	1	"	"	"	"	"	
	Other Oil	BRL	3710 mg/kg	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	23,200	3710 mg/kg	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*85.1*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-22 SA31998-15	08-204262	Ground Water	29-Jul-05 13:45	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	616	50.0 µg/l	50	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	1,050	50.0 µg/l	50	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	50.0 µg/l	50	"	"	"	"	"	
91-20-3	Naphthalene	352	50.0 µg/l	50	"	"	"	"	"	
108-88-3	Toluene	1,450	50.0 µg/l	50	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	1,310	50.0 µg/l	50	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	363	50.0 µg/l	50	"	"	"	"	"	
1330-20-7	m,p-Xylene	4,020	100 µg/l	50	"	"	"	"	"	
95-47-6	o-Xylene	996	50.0 µg/l	50	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*95.6*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.4*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*105*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*91.2*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	3.5	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	3.5	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*97.3*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Duplicate SA31998-16	08-204262	Ground Water	29-Jul-05 13:20	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	572	10.0 µg/l	10	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	11.8	10.0 µg/l	10	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	44.1	10.0 µg/l	10	"	"	"	"	"	
91-20-3	Naphthalene	163	10.0 µg/l	10	"	"	"	"	"	
108-88-3	Toluene	BRL	10.0 µg/l	10	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	175	10.0 µg/l	10	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	67.5	10.0 µg/l	10	"	"	"	"	"	
1330-20-7	m,p-Xylene	43.3	20.0 µg/l	10	"	"	"	"	"	
95-47-6	o-Xylene	BRL	10.0 µg/l	10	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*95.2*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.2*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*100*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*91.0*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	2.1	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	2.1	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*72.1*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2 SA31998-17	08-204262	Ground Water	29-Jul-05 15:00	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	150	10.0 µg/l	10	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	121	10.0 µg/l	10	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	10.0 µg/l	10	"	"	"	"	"	
91-20-3	Naphthalene	50.6	10.0 µg/l	10	"	"	"	"	"	
108-88-3	Toluene	25.7	10.0 µg/l	10	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	126	10.0 µg/l	10	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	41.3	10.0 µg/l	10	"	"	"	"	"	
1330-20-7	m,p-Xylene	437	20.0 µg/l	10	"	"	"	"	"	
95-47-6	o-Xylene	BRL	10.0 µg/l	10	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*98.6*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*92.8*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	1.7	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	1.7	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*79.0*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-101 SA31998-18	08-204262	Ground Water	29-Jul-05 14:50	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*94.2*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*101*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*89.2*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	0.4	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	0.4	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*56.8*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-1R SA31998-19	08-204262	Ground Water	29-Jul-05 14:40	02-Aug-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	08-Aug-05	09-Aug-05	5080574	tim	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*95.4*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.8*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*89.8*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	08-Aug-05	09-Aug-05	5080507	KG	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	0.5	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	0.5	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*54.2*	*40-140 %*		"	"	"	"	"	

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5080574 - Volatiles										
Blank (5080574-BLK1)				Prepared: 08-Aug-05 Analyzed: 09-Aug-05						
Benzene	BRL	1.0	µg/l							
Ethylbenzene	BRL	1.0	µg/l							
Methyl tert-butyl ether	BRL	1.0	µg/l							
Naphthalene	BRL	1.0	µg/l							
Toluene	BRL	1.0	µg/l							
1,2,4-Trimethylbenzene	BRL	1.0	µg/l							
1,3,5-Trimethylbenzene	BRL	1.0	µg/l							
m,p-Xylene	BRL	2.0	µg/l							
o-Xylene	BRL	1.0	µg/l							
Surrogate: 4-Bromofluorobenzene	*46.8*		µg/l	*50.0*		*93.6*	*70-130*			
Surrogate: Toluene-d8	*48.6*		µg/l	*50.0*		*97.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*51.2*		µg/l	*50.0*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*46.1*		µg/l	*50.0*		*92.2*	*70-130*			
LCS (5080574-BS1)				Prepared: 08-Aug-05 Analyzed: 09-Aug-05						
Benzene	21.1		µg/l	20.0		106	70-130			
Ethylbenzene	20.1		µg/l	20.0		100	70-130			
Methyl tert-butyl ether	20.2		µg/l	20.0		101	70-130			
Naphthalene	19.5		µg/l	20.0		97.5	70-130			
Toluene	21.4		µg/l	20.0		107	70-130			
1,2,4-Trimethylbenzene	19.1		µg/l	20.0		95.5	70-130			
1,3,5-Trimethylbenzene	19.2		µg/l	20.0		96.0	70-130			
m,p-Xylene	40.2		µg/l	40.0		100	70-130			
o-Xylene	19.3		µg/l	20.0		96.5	70-130			
Surrogate: 4-Bromofluorobenzene	*46.3*		µg/l	*50.0*		*92.6*	*70-130*			
Surrogate: Toluene-d8	*48.7*		µg/l	*50.0*		*97.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*50.4*		µg/l	*50.0*		*101*	*70-130*			
Surrogate: Dibromofluoromethane	*44.4*		µg/l	*50.0*		*88.8*	*70-130*			
LCS Dup (5080574-BSD1)				Prepared: 08-Aug-05 Analyzed: 09-Aug-05						
Benzene	21.5		µg/l	20.0		108	70-130	1.87	30	
Ethylbenzene	20.3		µg/l	20.0		102	70-130	1.98	30	
Methyl tert-butyl ether	18.2		µg/l	20.0		91.0	70-130	10.4	30	
Naphthalene	17.0		µg/l	20.0		85.0	70-130	13.7	30	
Toluene	21.6		µg/l	20.0		108	70-130	0.930	30	
1,2,4-Trimethylbenzene	19.7		µg/l	20.0		98.5	70-130	3.09	30	
1,3,5-Trimethylbenzene	19.7		µg/l	20.0		98.5	70-130	2.57	30	
m,p-Xylene	41.0		µg/l	40.0		102	70-130	1.98	30	
o-Xylene	19.7		µg/l	20.0		98.5	70-130	2.05	30	
Surrogate: 4-Bromofluorobenzene	*46.6*		µg/l	*50.0*		*93.2*	*70-130*			
Surrogate: Toluene-d8	*49.1*		µg/l	*50.0*		*98.2*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*47.8*		µg/l	*50.0*		*95.6*	*70-130*			
Surrogate: Dibromofluoromethane	*44.6*		µg/l	*50.0*		*89.2*	*70-130*			
Matrix Spike (5080574-MS1)	**Source: SA31998-11**			Prepared: 08-Aug-05 Analyzed: 09-Aug-05						
Benzene	23.5		µg/l	20.0	0.191	117	70-130			
Chlorobenzene	16.4		µg/l	20.0	BRL	82.0	70-130			
1,1-Dichloroethene	9.0		µg/l	20.0	BRL	45.0	70-130			QM-07
Toluene	15.8		µg/l	20.0	BRL	79.0	70-130			
Trichloroethene	13.1		µg/l	20.0	BRL	65.5	70-130			QM-07
Surrogate: 4-Bromofluorobenzene	*48.7*		µg/l	*50.0*		*97.4*	*70-130*			
Surrogate: Toluene-d8	*49.8*		µg/l	*50.0*		*99.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*56.6*		µg/l	*50.0*		*113*	*70-130*			
Surrogate: Dibromofluoromethane	*48.3*		µg/l	*50.0*		*96.6*	*70-130*			
Matrix Spike Dup (5080574-MSD1)	**Source: SA31998-11**			Prepared: 08-Aug-05 Analyzed: 09-Aug-05						

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5080574 - Volatiles										
Matrix Spike Dup (5080574-MSD1)	**Source: SA31998-11**			Prepared: 08-Aug-05 Analyzed: 09-Aug-05						
Benzene	23.7		µg/l	20.0	0.191	118	70-130	0.851	30	
Chlorobenzene	15.8		µg/l	20.0	BRL	79.0	70-130	3.73	30	
1,1-Dichloroethene	9.1		µg/l	20.0	BRL	45.5	70-130	1.10	30	QM-07
Toluene	14.9		µg/l	20.0	BRL	74.5	70-130	5.86	30	
Trichloroethene	12.8		µg/l	20.0	BRL	64.0	70-130	2.32	30	QM-07
Surrogate: 4-Bromofluorobenzene	*47.4*		µg/l	*50.0*		*94.8*	*70-130*			
Surrogate: Toluene-d8	*49.4*		µg/l	*50.0*		*98.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*52.6*		µg/l	*50.0*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*45.4*		µg/l	*50.0*		*90.8*	*70-130*			
Batch 5080723 - Volatiles										
Blank (5080723-BLK1)				Prepared & Analyzed: 10-Aug-05						
Benzene	BRL	1.0	µg/l							
Ethylbenzene	BRL	1.0	µg/l							
Methyl tert-butyl ether	BRL	1.0	µg/l							
Naphthalene	BRL	1.0	µg/l							
Toluene	BRL	1.0	µg/l							
1,2,4-Trimethylbenzene	BRL	1.0	µg/l							
1,3,5-Trimethylbenzene	BRL	1.0	µg/l							
m,p-Xylene	BRL	2.0	µg/l							
o-Xylene	BRL	1.0	µg/l							
Surrogate: 4-Bromofluorobenzene	*52.2*		µg/l	*50.0*		*104*	*70-130*			
Surrogate: Toluene-d8	*49.3*		µg/l	*50.0*		*98.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*49.6*		µg/l	*50.0*		*99.2*	*70-130*			
Surrogate: Dibromofluoromethane	*50.9*		µg/l	*50.0*		*102*	*70-130*			
LCS (5080723-BS1)				Prepared & Analyzed: 10-Aug-05						
Benzene	18.6		µg/l	20.0		93.0	70-130			
Ethylbenzene	18.3		µg/l	20.0		91.5	70-130			
Methyl tert-butyl ether	21.3		µg/l	20.0		106	70-130			
Naphthalene	20.5		µg/l	20.0		102	70-130			
Toluene	18.2		µg/l	20.0		91.0	70-130			
1,2,4-Trimethylbenzene	19.0		µg/l	20.0		95.0	70-130			
1,3,5-Trimethylbenzene	18.8		µg/l	20.0		94.0	70-130			
m,p-Xylene	36.0		µg/l	40.0		90.0	70-130			
o-Xylene	20.3		µg/l	20.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	*52.2*		µg/l	*50.0*		*104*	*70-130*			
Surrogate: Toluene-d8	*49.8*		µg/l	*50.0*		*99.6*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*54.1*		µg/l	*50.0*		*108*	*70-130*			
Surrogate: Dibromofluoromethane	*54.0*		µg/l	*50.0*		*108*	*70-130*			
LCS Dup (5080723-BSD1)				Prepared & Analyzed: 10-Aug-05						
Benzene	18.9		µg/l	20.0		94.5	70-130	1.60	30	
Ethylbenzene	19.9		µg/l	20.0		99.5	70-130	8.38	30	
Methyl tert-butyl ether	17.6		µg/l	20.0		88.0	70-130	18.6	30	
Naphthalene	18.7		µg/l	20.0		93.5	70-130	8.70	30	
Toluene	18.5		µg/l	20.0		92.5	70-130	1.63	30	
1,2,4-Trimethylbenzene	20.4		µg/l	20.0		102	70-130	7.11	30	
1,3,5-Trimethylbenzene	20.4		µg/l	20.0		102	70-130	8.16	30	
m,p-Xylene	38.5		µg/l	40.0		96.2	70-130	6.66	30	
o-Xylene	20.4		µg/l	20.0		102	70-130	0.00	30	
Surrogate: 4-Bromofluorobenzene	*50.9*		µg/l	*50.0*		*102*	*70-130*			
Surrogate: Toluene-d8	*49.5*		µg/l	*50.0*		*99.0*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*47.6*		µg/l	*50.0*		*95.2*	*70-130*			
Surrogate: Dibromofluoromethane	*49.6*		µg/l	*50.0*		*99.2*	*70-130*			

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5080723 - Volatiles										
Matrix Spike (5080723-MS1)		**Source: SA31851-09**		Prepared & Analyzed: 10-Aug-05						
Benzene	21.2		µg/l	20.0	BRL	106	70-130			
Chlorobenzene	22.4		µg/l	20.0	BRL	112	70-130			
1,1-Dichloroethene	20.6		µg/l	20.0	BRL	103	70-130			
Toluene	28.4		µg/l	20.0	7.60	104	70-130			
Trichloroethene	21.2		µg/l	20.0	BRL	106	70-130			
Surrogate: 4-Bromofluorobenzene	*52.1*		µg/l	*50.0*		*104*	*70-130*			
Surrogate: Toluene-d8	*49.4*		µg/l	*50.0*		*98.8*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*53.4*		µg/l	*50.0*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*51.4*		µg/l	*50.0*		*103*	*70-130*			
Matrix Spike Dup (5080723-MSD1)		**Source: SA31851-09**		Prepared & Analyzed: 10-Aug-05						
Benzene	26.3		µg/l	20.0	BRL	132	70-130	21.8	30	QM-07
Chlorobenzene	22.5		µg/l	20.0	BRL	112	70-130	0.00	30	
1,1-Dichloroethene	19.7		µg/l	20.0	BRL	98.5	70-130	4.47	30	
Toluene	28.1		µg/l	20.0	7.60	102	70-130	1.94	30	
Trichloroethene	21.1		µg/l	20.0	BRL	106	70-130	0.00	30	
Surrogate: 4-Bromofluorobenzene	*52.6*		µg/l	*50.0*		*105*	*70-130*			
Surrogate: Toluene-d8	*50.0*		µg/l	*50.0*		*100*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*53.7*		µg/l	*50.0*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*51.7*		µg/l	*50.0*		*103*	*70-130*			

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5080507 - SW846 3535										
Blank (5080507-BLK1)				Prepared: 08-Aug-05 Analyzed: 09-Aug-05						
Fuel Oil #2	BRL	0.1	mg/l							
Fuel Oil #4	BRL	0.1	mg/l							
Fuel Oil #6	BRL	0.1	mg/l							
Motor Oil	BRL	0.1	mg/l							
Aviation Fuel	BRL	0.1	mg/l							
Unidentified	BRL	0.1	mg/l							
Other Oil	BRL	0.1	mg/l							
Diesel Range Organics (DRO)	BRL	0.1	mg/l							
Surrogate: 1-Chlorooctadecane	*0.0224*		mg/l	*0.0500*		*44.8*	*40-140*			
LCS (5080507-BS1)				Prepared: 08-Aug-05 Analyzed: 09-Aug-05						
Fuel Oil #2	10.1	0.1	mg/l	10.0		101	40-140			
Surrogate: 1-Chlorooctadecane	*0.104*		mg/l	*0.0500*		*208*	*40-140*			*S-02*
Batch 5080701 - SW846 3550B										
Blank (5080701-BLK1)				Prepared: 10-Aug-05 Analyzed: 11-Aug-05						
Gasoline	BRL	133	mg/kg							
Fuel Oil #2	BRL	133	mg/kg							
Fuel Oil #4	BRL	133	mg/kg							
Fuel Oil #6	BRL	133	mg/kg							
Motor Oil	BRL	133	mg/kg							
Ligroin	BRL	133	mg/kg							
Aviation Fuel	BRL	133	mg/kg							
Unidentified	BRL	133	mg/kg							
Other Oil	BRL	133	mg/kg							
Total Petroleum Hydrocarbons	BRL	133	mg/kg							
Surrogate: 1-Chlorooctadecane	*2.48*		mg/kg	*3.33*		*74.5*	*40-140*			
LCS (5080701-BS1)				Prepared: 10-Aug-05 Analyzed: 11-Aug-05						
Fuel Oil #2	831	13.3	mg/kg	667		125	40-140			
Duplicate (5080701-DUP1)		**Source: SA31998-06**		Prepared: 10-Aug-05 Analyzed: 11-Aug-05						
Gasoline	BRL	3700	mg/kg		BRL				50	
Fuel Oil #2	189000	3700	mg/kg		201000			6.15	50	
Fuel Oil #4	BRL	3700	mg/kg		BRL				50	
Fuel Oil #6	BRL	3700	mg/kg		BRL				50	
Motor Oil	BRL	3700	mg/kg		BRL				50	
Ligroin	BRL	3700	mg/kg		BRL				50	
Aviation Fuel	BRL	3700	mg/kg		BRL				50	
Unidentified	BRL	3700	mg/kg		BRL				50	
Other Oil	BRL	3700	mg/kg		BRL				50	
Total Petroleum Hydrocarbons	189000	3700	mg/kg		201000			6.15	50	
Surrogate: 1-Chlorooctadecane	*576*		mg/kg	*92.7*		*621*	*40-140*			*S-02*

Notes and Definitions

*TPH Calculated as

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

BRL Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit

dry Sample results reported on a dry weight basis

NR Not Reported

RPD Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown

SA 31998

SPECTRUM ANALYTICAL, INC.
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CHAIN OF CUSTODY RECORD

Page 1 of 2

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- All samples are disposed of after 60 days unless otherwise instructed.

Report To: ECS
65 MILLER ST, SUITE 301
RICHMOND, VT 05477

Project Mgr.: RON MILLER

Invoice To: ECS Inc
~~SAME~~ 888 Silver St.
Agawam, MA
1W#50110150

P.O. No.: _____ RQN: PCF

Project No.: 08-204262
Site Name: NORTHERN PETROLEUM
Location: ST. JOHNSBURY State: VT
Sampler(s): S. BACHMAN & M. GUSRIJO

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1= PRODUCT X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: 8021B VT SCAN (MTBE)	TPH DRO	8015B DRO	8100	Notes:
31998-01	TRIP BLANK	7/29/05	0745	G	GW	2	2				X				
AC-02	MW-1		1355					1					X		
AC-03	MW-2 ECS		1400										X		
AC-04	MW-4												X		
AC-05	MW-5		1440										X		
AC-06	MW-7		1405		X1		1							X	
AC-07	MW-8		1430		GW	2	2	1			X		X		
AC-08	MW-11		1435												
AC-09	MW-12		1430												
AC-10	MW-13		1425												

Relinquished by:	Received by:	Date:	Time:
		7/29/05	1830
		8/1/05	1610
		8/2/05	950

- [ ] Fax results when available to (____) _____
- [x] E-mail results when available to rm.miller@ecsconsult.com
- Condition upon Receipt: [x] Iced [ ] Ambient [ ] 3 °C

31998

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 2 of 2

Special Handling:
- ☒ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: ______
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- All samples are disposed of after 60 days unless otherwise instructed.

Report To: E&S
65 Millet St, Suite 301
Richmond, VT 05477

Project Mgr.: Ron Muller

Invoice To: ECS Inc.
~~588 Silver St.~~ SAME
Agawam, MA

P.O. No.: ______ RQN: PCF

Project No.: 08-204262
Site Name: Northern Petroleum
Location: St. Johnsbury State: VT
Sampler(s): B. Bachman & M. Guerino

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8=$NaHSO_4$ 9=______ 10=______

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1= PRODUCT X2=______ X3=______

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	8021B VTSCAN	~~TPH DRO~~ (MG)	8015B DRO	8100	Notes:
31998 AC-11	MW-16	7/29/05	1320	G	GW	2	2	1			X		X		
AC-12	MW-17	|	1145	|	X1		1							X	
AC-13	MW-18	|	1335	|	GW	2	2	1			X		X		
AC-14	MW-19	|	1255	|	X1		1							X	
AC-15	MW-22	|	1345	|	GW	2	2	1			X		X		
AC-16	DUPLICATE	|	1320	G	|	|	|	|			|		|		
AC 17	MW-2	|	1500	|	|	|	|	|			|		|		
AC-18	MW-101	|	1450	|	|	|	|	|			|		|		
AC-19	MW-1R	|	1440	|	|	|	|	|			|		|		
AC															

Relinquished by:	Received by:	Date:	Time:
Brian Bachman	Jerry Chiland	7/29/05	1830
Jerry Chiland		8/1/05	1610
J. Fedak	C. Dionne	8/2/05	950

☐ Fax results when available to (____) ______
☒ E-mail results when available to rmuller@ecsconsult.com
Condition upon Receipt: ☒ Iced ☐ Ambient ☐ 3 °C

Report Date:
07-Nov-05 09:50

SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

Environmental Compliance Services
65 Millet Street; Suite 301
Richmond, VT 05477
Attn: Kimberle Lockard

Project: Northern Petroleum-St Johnsbury, VT
Project #: 08-204262.00

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA36288-01	Trip	Ground Water	19-Oct-05 08:30	25-Oct-05 09:10
SA36288-02	MW-29	Ground Water	19-Oct-05 12:05	25-Oct-05 09:10
SA36288-03	MW-30	Ground Water	19-Oct-05 12:15	25-Oct-05 09:10
SA36288-04	Duplicate	Ground Water	19-Oct-05 12:20	25-Oct-05 09:10
SA36288-05	MW-32	Ground Water	19-Oct-05 12:15	25-Oct-05 09:10
SA36288-06	MW-27	Ground Water	19-Oct-05 13:50	25-Oct-05 09:10
SA36288-07	MW-26	Ground Water	19-Oct-05 13:35	25-Oct-05 09:10
SA36288-09	MW-31	Ground Water	19-Oct-05 12:25	25-Oct-05 09:10
SA36288-10	MW-28	Oil	19-Oct-05 13:20	25-Oct-05 09:10

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. All applicable NELAC requirements have been met.
Please note that this report contains 16 pages of analytical data plus Chain of Custody document(s).
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Maine # MA138
New Hampshire # 2538/2972
New York # 11393/11840
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

ACCREDITED IN ACCORDANCE WITH nelac

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

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RECEIVED
NOV 14 2005

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Trip SA36288-01	08-204262.00	Ground Water	19-Oct-05 08:30	25-Oct-05

CAS No.	*Analyte(s)*	*Result*	**RDL/Units*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Batch*	*Analyst*	*Flag*
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	31-Oct-05	01-Nov-05	5101883	krl	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*95.0*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*95.7*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*108*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*110*	*70-130 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-29 SA36288-02	08-204262.00	Ground Water	19-Oct-05 12:05	25-Oct-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	31-Oct-05	01-Nov-05	5101883	krl	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*93.7*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*111*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*108*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	31-Oct-05	01-Nov-05	5101846	LK	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	BRL	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	BRL	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*72.1*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-30 SA36288-03	08-204262.00	Ground Water	19-Oct-05 12:15	25-Oct-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	01-Nov-05	01-Nov-05	5110026	KS	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	2.2	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	2.0	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	1.1	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*99.0*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*96.3*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	31-Oct-05	01-Nov-05	5101846	LK	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	4.7	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	4.7	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*125*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Duplicate SA36288-04	08-204262.00	Ground Water	19-Oct-05 12:20	25-Oct-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	01-Nov-05	01-Nov-05	5110026	KS	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	1.8	1.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	2.0	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	1.1	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*100*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*107*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99.3*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	Calculated as	0.2 mg/l	1	8015BM/ME4.1 .25	31-Oct-05	01-Nov-05	5101846	LK	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	4.9	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	4.9	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*135*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-32 SA36288-05	08-204262.00	Ground Water	19-Oct-05 12:15	25-Oct-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	31-Oct-05	01-Nov-05	5101883	krl	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*91.3*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*90.7*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*110*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*108*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	31-Oct-05	01-Nov-05	5101846	LK	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	BRL	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	BRL	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*81.1*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-27 SA36288-06	08-204262.00	Ground Water	19-Oct-05 13:50	25-Oct-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	31-Oct-05	01-Nov-05	5101883	krl	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*93.3*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*115*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*117*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	31-Oct-05	01-Nov-05	5101846	LK	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	BRL	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	BRL	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*73.3*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-26 SA36288-07	08-204262.00	Ground Water	19-Oct-05 13:35	25-Oct-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	31-Oct-05	01-Nov-05	5101883	krl	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*92.7*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99.7*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*109*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	31-Oct-05	01-Nov-05	5101846	LK	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	BRL	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	BRL	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*60.2*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-31 SA36288-09	08-204262.00	Ground Water	19-Oct-05 12:25	25-Oct-05

CAS No.	Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
Volatile Organic Compounds										
Volatile Organic Compounds by 8260B			Prepared by method Volatiles							
71-43-2	Benzene	BRL	1.0 µg/l	1	SW846 8260B	31-Oct-05	01-Nov-05	5101883	krl	
100-41-4	Ethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL	1.0 µg/l	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL	5.0 µg/l	1	"	"	"	"	"	
108-88-3	Toluene	BRL	1.0 µg/l	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL	1.0 µg/l	1	"	"	"	"	"	
1330-20-7	m,p-Xylene	BRL	2.0 µg/l	1	"	"	"	"	"	
95-47-6	o-Xylene	BRL	1.0 µg/l	1	"	"	"	"	"	
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*91.7*	*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98.0*	*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*94.7*	*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*	*70-130 %*		"	"	"	"	"	
Extractable Petroleum Hydrocarbons										
Diesel Range Organics			Prepared by method SW846 3535							
68476-30-2	Fuel Oil #2	BRL	0.2 mg/l	1	8015BM/ME4.1 .25	31-Oct-05	01-Nov-05	5101846	LK	
68476-31-3	Fuel Oil #4	BRL	0.2 mg/l	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	0.2 mg/l	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	0.2 mg/l	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	0.2 mg/l	1	"	"	"	"	"	
	Unidentified	0.7	0.2 mg/l	1	"	"	"	"	"	
	Other Oil	Calculated as	0.2 mg/l	1	"	"	"	"	"	
	Diesel Range Organics (DRO)	0.7	0.2 mg/l	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*90.3*	*40-140 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-28 SA36288-10	08-204262.00	Oil	19-Oct-05 13:20	25-Oct-05

CAS No.	*Analyte(s)*	*Result*	**RDL/Units*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Batch*	*Analyst*	*Flag*
Extractable Petroleum Hydrocarbons										
TPH 8100 by GC			Prepared by method SW846 3550B							
8006-61-9	Gasoline	Calculated as	19200 mg/kg	1	+SW846 8100Mod.	02-Nov-05	03-Nov-05	5110073	LK	
68476-30-2	Fuel Oil #2	BRL	19200 mg/kg	1	"	"	"	"	"	
68476-31-3	Fuel Oil #4	BRL	19200 mg/kg	1	"	"	"	"	"	
68553-00-4	Fuel Oil #6	BRL	19200 mg/kg	1	"	"	"	"	"	
M09800000	Motor Oil	BRL	19200 mg/kg	1	"	"	"	"	"	
8032-32-4	Ligroin	BRL	19200 mg/kg	1	"	"	"	"	"	
J00100000	Aviation Fuel	BRL	19200 mg/kg	1	"	"	"	"	"	
	Unidentified	1,000,000	19200 mg/kg	1	"	"	"	"	"	
	Other Oil	Calculated as	19200 mg/kg	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	1,000,000	19200 mg/kg	1	"	"	"	"	"	
Surrogate recoveries:										
3386-33-2	*1-Chlorooctadecane*	*3600*	*40-140 %*		"	"	"	"	"	S-02

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5101883 - Volatiles										
Blank (5101883-BLK1)				Prepared & Analyzed: 31-Oct-05						
Benzene	BRL	1.0	µg/l							
Ethylbenzene	BRL	1.0	µg/l							
Methyl tert-butyl ether	BRL	1.0	µg/l							
Naphthalene	BRL	5.0	µg/l							
Toluene	BRL	1.0	µg/l							
1,2,4-Trimethylbenzene	BRL	1.0	µg/l							
1,3,5-Trimethylbenzene	BRL	1.0	µg/l							
m,p-Xylene	BRL	2.0	µg/l							
o-Xylene	BRL	1.0	µg/l							
Surrogate: 4-Bromofluorobenzene	*28.7*		µg/l	*30.0*		*95.7*	*70-130*			
Surrogate: Toluene-d8	*27.8*		µg/l	*30.0*		*92.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*32.9*		µg/l	*30.0*		*110*	*70-130*			
Surrogate: Dibromofluoromethane	*32.2*		µg/l	*30.0*		*107*	*70-130*			
LCS (5101883-BS1)				Prepared & Analyzed: 31-Oct-05						
Benzene	21.8		µg/l	20.0		109	70-130			
Ethylbenzene	21.7		µg/l	20.0		108	70-130			
Methyl tert-butyl ether	24.0		µg/l	20.0		120	70-130			
Naphthalene	23.3		µg/l	20.0		116	70-130			
Toluene	21.2		µg/l	20.0		106	70-130			
1,2,4-Trimethylbenzene	22.6		µg/l	20.0		113	70-130			
1,3,5-Trimethylbenzene	21.7		µg/l	20.0		108	70-130			
m,p-Xylene	47.5		µg/l	40.0		119	70-130			
o-Xylene	23.7		µg/l	20.0		118	70-130			
Surrogate: 4-Bromofluorobenzene	*29.9*		µg/l	*30.0*		*99.7*	*70-130*			
Surrogate: Toluene-d8	*29.7*		µg/l	*30.0*		*99.0*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*30.5*		µg/l	*30.0*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*31.4*		µg/l	*30.0*		*105*	*70-130*			
Matrix Spike (5101883-MS1)	**Source: SA36182-04**			Prepared: 31-Oct-05 Analyzed: 01-Nov-05						
Benzene	14.3		µg/l	20.0	BRL	71.5	70-130			
Chlorobenzene	18.2		µg/l	20.0	BRL	91.0	70-130			
1,1-Dichloroethene	8.9		µg/l	20.0	BRL	44.5	70-130			QM-07
Toluene	16.3		µg/l	20.0	BRL	81.5	70-130			
Trichloroethene	15.0		µg/l	20.0	BRL	75.0	70-130			
Surrogate: 4-Bromofluorobenzene	*30.0*		µg/l	*30.0*		*100*	*70-130*			
Surrogate: Toluene-d8	*31.4*		µg/l	*30.0*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*30.9*		µg/l	*30.0*		*103*	*70-130*			
Surrogate: Dibromofluoromethane	*30.6*		µg/l	*30.0*		*102*	*70-130*			
Matrix Spike Dup (5101883-MSD1)	**Source: SA36182-04**			Prepared: 31-Oct-05 Analyzed: 01-Nov-05						
Benzene	14.3		µg/l	20.0	BRL	71.5	70-130	0.00	30	
Chlorobenzene	18.6		µg/l	20.0	BRL	93.0	70-130	2.17	30	
1,1-Dichloroethene	10.4		µg/l	20.0	BRL	52.0	70-130	15.5	30	QM-07
Toluene	16.6		µg/l	20.0	BRL	83.0	70-130	1.82	30	
Trichloroethene	16.1		µg/l	20.0	BRL	80.5	70-130	7.07	30	
Surrogate: 4-Bromofluorobenzene	*30.0*		µg/l	*30.0*		*100*	*70-130*			
Surrogate: Toluene-d8	*31.6*		µg/l	*30.0*		*105*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*28.6*		µg/l	*30.0*		*95.3*	*70-130*			
Surrogate: Dibromofluoromethane	*29.5*		µg/l	*30.0*		*98.3*	*70-130*			
Batch 5110026 - Volatiles										
Blank (5110026-BLK1)				Prepared & Analyzed: 01-Nov-05						
Benzene	BRL	1.0	µg/l							
Ethylbenzene	BRL	1.0	µg/l							
Methyl tert-butyl ether	BRL	1.0	µg/l							

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5110026 - Volatiles										
Blank (5110026-BLK1)				Prepared & Analyzed: 01-Nov-05						
Naphthalene	BRL	1.0	µg/l							
Toluene	BRL	1.0	µg/l							
1,2,4-Trimethylbenzene	BRL	1.0	µg/l							
1,3,5-Trimethylbenzene	BRL	1.0	µg/l							
m,p-Xylene	BRL	2.0	µg/l							
o-Xylene	BRL	1.0	µg/l							
Surrogate: 4-Bromofluorobenzene	*26.8*		µg/l	*30.0*		*89.3*	*70-130*			
Surrogate: Toluene-d8	*30.0*		µg/l	*30.0*		*100*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*31.3*		µg/l	*30.0*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*31.4*		µg/l	*30.0*		*105*	*70-130*			
LCS (5110026-BS1)				Prepared & Analyzed: 01-Nov-05						
Benzene	21.5		µg/l	20.0		108	70-130			
Ethylbenzene	22.3		µg/l	20.0		112	70-130			
Methyl tert-butyl ether	26.8		µg/l	20.0		134	70-130			QC-1
Naphthalene	23.8		µg/l	20.0		119	70-130			
Toluene	23.9		µg/l	20.0		120	70-130			
1,2,4-Trimethylbenzene	22.3		µg/l	20.0		112	70-130			
1,3,5-Trimethylbenzene	21.6		µg/l	20.0		108	70-130			
m,p-Xylene	46.9		µg/l	40.0		117	70-130			
o-Xylene	23.9		µg/l	20.0		120	70-130			
Surrogate: 4-Bromofluorobenzene	*30.6*		µg/l	*30.0*		*102*	*70-130*			
Surrogate: Toluene-d8	*34.8*		µg/l	*30.0*		*116*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*30.7*		µg/l	*30.0*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*33.5*		µg/l	*30.0*		*112*	*70-130*			
LCS Dup (5110026-BSD1)				Prepared & Analyzed: 01-Nov-05						
Benzene	20.8		µg/l	20.0		104	70-130	3.77	30	
Ethylbenzene	22.1		µg/l	20.0		110	70-130	1.80	30	
Methyl tert-butyl ether	22.0		µg/l	20.0		110	70-130	19.7	30	
Naphthalene	23.1		µg/l	20.0		116	70-130	2.55	30	
Toluene	20.2		µg/l	20.0		101	70-130	17.2	30	
1,2,4-Trimethylbenzene	21.7		µg/l	20.0		108	70-130	3.64	30	
1,3,5-Trimethylbenzene	21.5		µg/l	20.0		108	70-130	0.00	30	
m,p-Xylene	46.3		µg/l	40.0		116	70-130	0.858	30	
o-Xylene	23.8		µg/l	20.0		119	70-130	0.837	30	
Surrogate: 4-Bromofluorobenzene	*31.0*		µg/l	*30.0*		*103*	*70-130*			
Surrogate: Toluene-d8	*29.3*		µg/l	*30.0*		*97.7*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*29.4*		µg/l	*30.0*		*98.0*	*70-130*			
Surrogate: Dibromofluoromethane	*30.8*		µg/l	*30.0*		*103*	*70-130*			
Matrix Spike (5110026-MS1)	**Source: SA36182-02**			Prepared & Analyzed: 01-Nov-05						
Benzene	23.6		µg/l	20.0	BRL	118	70-130			
Chlorobenzene	21.5		µg/l	20.0	BRL	108	70-130			
1,1-Dichloroethene	31.1		µg/l	20.0	BRL	156	70-130			QM-07
Toluene	23.5		µg/l	20.0	BRL	118	70-130			
Trichloroethene	21.8		µg/l	20.0	BRL	109	70-130			
Surrogate: 4-Bromofluorobenzene	*31.3*		µg/l	*30.0*		*104*	*70-130*			
Surrogate: Toluene-d8	*29.7*		µg/l	*30.0*		*99.0*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*30.2*		µg/l	*30.0*		*101*	*70-130*			
Surrogate: Dibromofluoromethane	*33.0*		µg/l	*30.0*		*110*	*70-130*			
Matrix Spike Dup (5110026-MSD1)	**Source: SA36182-02**			Prepared & Analyzed: 01-Nov-05						
Benzene	24.4		µg/l	20.0	BRL	122	70-130	3.33	30	
Chlorobenzene	23.5		µg/l	20.0	BRL	118	70-130	8.85	30	
1,1-Dichloroethene	40.6		µg/l	20.0	BRL	203	70-130	26.2	30	QM-07

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5110026 - Volatiles										
Matrix Spike Dup (5110026-MSD1)	**Source: SA36182-02**			Prepared & Analyzed: 01-Nov-05						
Toluene	25.9		µg/l	20.0	BRL	130	70-130	9.68	30	
Trichloroethene	23.1		µg/l	20.0	BRL	116	70-130	6.22	30	
Surrogate: 4-Bromofluorobenzene	*30.8*		µg/l	*30.0*		*103*	*70-130*			
Surrogate: Toluene-d8	*32.4*		µg/l	*30.0*		*108*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*31.5*		µg/l	*30.0*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*35.3*		µg/l	*30.0*		*118*	*70-130*			

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 5101846 - SW846 3535										
Blank (5101846-BLK1)				Prepared: 31-Oct-05 Analyzed: 01-Nov-05						
Fuel Oil #2	BRL	0.1	mg/l							
Fuel Oil #4	BRL	0.1	mg/l							
Fuel Oil #6	BRL	0.1	mg/l							
Motor Oil	BRL	0.1	mg/l							
Aviation Fuel	BRL	0.1	mg/l							
Unidentified	BRL	0.1	mg/l							
Other Oil	BRL	0.1	mg/l							
Diesel Range Organics (DRO)	BRL	0.1	mg/l							
Surrogate: 1-Chlorooctadecane	*0.0386*		mg/l	*0.0500*		*77.2*	*40-140*			
LCS (5101846-BS1)				Prepared: 31-Oct-05 Analyzed: 01-Nov-05						
Fuel Oil #2	9.4	0.1	mg/l	10.0		94.0	40-140			
Surrogate: 1-Chlorooctadecane	*0.107*		mg/l	*0.0500*		*214*	*40-140*			*S-02*
Batch 5110073 - SW846 3550B										
Blank (5110073-BLK1)				Prepared: 02-Nov-05 Analyzed: 03-Nov-05						
Gasoline	BRL	133	mg/kg							
Fuel Oil #2	BRL	133	mg/kg							
Fuel Oil #4	BRL	133	mg/kg							
Fuel Oil #6	BRL	133	mg/kg							
Motor Oil	BRL	133	mg/kg							
Ligroin	BRL	133	mg/kg							
Aviation Fuel	BRL	133	mg/kg							
Unidentified	BRL	133	mg/kg							
Other Oil	BRL	133	mg/kg							
Total Petroleum Hydrocarbons	BRL	133	mg/kg							
Surrogate: 1-Chlorooctadecane	*3.71*		mg/kg	*3.33*		*111*	*40-140*			
LCS (5110073-BS1)				Prepared: 02-Nov-05 Analyzed: 03-Nov-05						
Fuel Oil #2	588	13.3	mg/kg	667		88.2	40-140			
Duplicate (5110073-DUP1)		**Source: SA36288-10**		Prepared: 02-Nov-05 Analyzed: 03-Nov-05						
Gasoline	Calculated as	18200	mg/kg		BRL				50	
Fuel Oil #2	BRL	18200	mg/kg		BRL				50	
Fuel Oil #4	BRL	18200	mg/kg		BRL				50	
Fuel Oil #6	BRL	18200	mg/kg		BRL				50	
Motor Oil	BRL	18200	mg/kg		BRL				50	
Ligroin	BRL	18200	mg/kg		BRL				50	
Aviation Fuel	BRL	18200	mg/kg		BRL				50	
Unidentified	1000000	18200	mg/kg		1000000			0.00	50	
Other Oil	Calculated as	18200	mg/kg		BRL				50	
Total Petroleum Hydrocarbons	1000000	18200	mg/kg		1000000			0.00	50	
Surrogate: 1-Chlorooctadecane	*12400*		mg/kg	*456*		*NR*	*40-140*			*S-02*

Notes and Definitions

*TPH	Calculated as
QC-1	Analyte out of acceptance range.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
Fuel Oil #4 - includes #4 fuel oil
Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
Motor Oil - includes virgin and waste automobile oil
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
Aviation Fuel - includes kerosene, Jet A and JP-4
Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and

Validated by:
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